

Note Book.

Jan. 1 - Feb. 8 1930.

Japan

W. J. Morse.

W. J. Morse
U. S. Dept. of Agriculture
Forage Crop Office
Washington,
D. C.

~~Winter up.~~

106m

Jan. 1, 1930. Wednesday.

Tokio, Japan.

Cold, clear, and very windy.

In the morning when we
went to breakfast we were
given a card

"Shinner - linedoto"
(A Happy New Year)

The Management had the
following dish prepared and
served with their compliments

O-ZOHNI - (Teal duck soup
with rice cake and green
vegetables)

This is a ceremonial dish
served at the breakfast table
in every Japanese home
during the New Year season.

O-TOSHO - A ceremonial
sweet wine which is

happiness for the coming year.

After breakfast we took a long walk up the Ginza and we found practically everything deserted. Only an occasional store was open. Very few people were on the streets. All the hustle and bustle of Tokyo's street life was missing, all the principal restaurants were closed for the day.

After our return, worked on expense account and wrote up itinerary for month of December, 1929.

Tokyo

Thursday - Jan. 2, 1930.
Tokio. Japan.

Cold and clear. In the morning wrote official correspondence to D. N. Lutz, Keijo, Korea, Tadaschi Hasegawa, Saitama Expr. Sta. Urawa, Japan, and Ryerson, Sect. of Agr. regarding request of Mr. Hasegawa for varieties of sweet and white potatoes.

In the afternoon worked on notes for soybean products, and the soybean industry in Korea.

After supper, worked on expense account and also on Hokkaido soybean notes.

Wrote Mr. Philip Raine

Wash. D.C. regard the
Smithsonian Institution Ry.

1862

Friday - Jan. 3, 1930.

Tokio - Japan.

Weather clear. Before breakfast wrote some letters. At breakfast we were again served O-ZOHNI and O-TOSO. After breakfast went to the office. Taking the rest of the Surigao Sugarcane samples for mailing in a parcel post package. No fruit in the building so checked up seed samples and returned to hotel. Wrote some official correspondence. Wrote the Salsata Seed Co. Yokohama asking that they send us 6 lbs. of Kudzu seed for sending to the U.S. After lunch went to the

department stores to
 purchase some office supplies
 1 box small rubber bands — .20
 2 book paper clips @ 10¢ each .20
 official postage .33

at the Matsuzaka Dept. store
 gifts were given with each
 purchase. We obtained several
 small decorated cotton towels.
 at the Matsuzakaya. we were
 given checks with each year
 purchase. With five yen worth
 of these tickets one drew an
 envelope at the lottery desk
 and drew some sort of prize.
 Margaret drew a decorated
 cotton towel.

In evening, work on my bean
 product notes. looked over
 official correspondence, and
 quarterly report.

Saturday, Jan. 4, 1930.

Tokio, Japan

Cold and clear. In the morning wrote special correspondence. Wrote to Claude Cots, Havana, Ill. regarding saybams in the Orient. Also added to note to letter to Mr. Sabata for seed of *Viburnum Carlesii*. Wrote itinerary for Dec. expense account.

Worked on saybams product notes.

Went to the Grand Restaurant near the Imperial Hotel.

In evening went to the Fuyi where the manager told us that Jan. 5 is the New Year day for dinner.

In the evening worked

on saykum product
notes, gathering data from
the note books, and
arranging different pad
products according to
envelops.

Tokio. Japan

Jan. 5. 1930. Sunday

Cold and clear. In the morning worked on notes and outlines for sulphur products. Also wrote up notes on products from data collected from various sources.

In afternoon after lunch visited Mitsukoshi Dept. Store and in food department, observed packages of yuba which were about 12 in. long. The yuba being in thin rolled sheets.

In the evening wrote some official letters.

writing notes on
rayben products, and
changed outlines for
data to be gathered on
products manufactured
in and near Tokio.

Jan. 6, 1930. Monday
Tokio, Japan.

Cold and clear,
Bean and P. loc #1.

2 varieties used. one a med.
sized yellow and the other a
med. sized greenish yellow. both
from Chosen. Yellow seed is
higher quality.

Soak beans - In winter from
2-3 o'clock until early morning. In
summer begin soaking 5-6 o'clock
in the morning until 5 ^{pm}, noon.

Grind with stone mill driven
by power (electric); water constantly
runs in hopper while the soaked
beans are being ground.

Beans (soaked and ground)
are boiled 2-2 1/2 hours.

6 shes of beans make
two boxes of bean curd
each box 40 slices sell for
5 sen each.

Coagulant is some sort
of lime - gypsum sulfate, this
lime is mixed with oil.
This mixture is put in
the boiling milk, while
boiling (Lime called ~~Kono~~-Kaki
Kona or shibai). The
oil-lime paste is rubbed
around the edge of the kettle
until milk is gone. The
curd then forms and is
ready for the strainer. This
is placed on cloth in flat
box and cloth folded over.
A small hand press
is then used to press
out excess water and
firm the curd.

Bean wash left from
milk making is sold to
dairy cattlemen for dairy
feed. All the wash from
this place is sold to a man
with a dairy.

Bean Cured Place # 2

Variety used - During the
winter they used yellow and
yellowish green mixed.
During the summer can't
get greenish yellow and
so only use the yellow. Can
only get green in fall &
winter. The green one is
cheaper. Green bean cured
does not make good frying
bean cured but the yellow
does. So the yellow & green
are mixed because of

cheaper beans and also
makes a good buying curd.

Soak beans from 4 P.M.
until 3 A.M. next morn.
Soaked beans are ground
in stone mill

Coagulant - Use
Mg. sul. paste and
also solution of salt
(probably Mg. chloride).

Bean mash, after milk
is made - is sold to
dairy cattle feeders.

Solution and paste are
added when milk mash
is boiled.

Bean mash with water
is boiled is boiled for
1 1/2 hours. Generally from
1 - 1 1/2 hours.

2 hours from forming of
curd to pressed out bricks.

7 shu of soybeans make
40 bricks of curd ($3 \times 5 - 1\frac{1}{2}$)
Each brick weighs about
1 lb. and sell for 5 sen each.
After being made into
bricks, they are kept in
wooden tubs of cold water.

Natto Factory - Tokio:

Michael Fukushima natto
much like Dr. Harazawa's
method. Natto bacteria are
added as the boiled beans
are placed in rice straw
packages and this serves to
give the proper bacterium.

Used the "Akita" variety of
soybean which is grown
in Hokkaido.

The beans are soaked

from 9 or 10 A.M. (about
12 hours) & 9 or 10 A.M.
next morning. The beans
are then boiled in large
tubs for about 10 hours
~~over~~ a slow fire.

I have a large fermenting
room and charcoal fire
is placed in room. Shelves
are placed over the heat and
the rice straw packages &
boiled beans placed on the
racks or shelves.

The fermenting room is
kept $100-120^{\circ}F$ so that the
bacteria develops in one
night. The packages are kept
in the fermenting room
a full twenty-four hours.
This is string Natto.

This form of Natto is
used with mustard paste

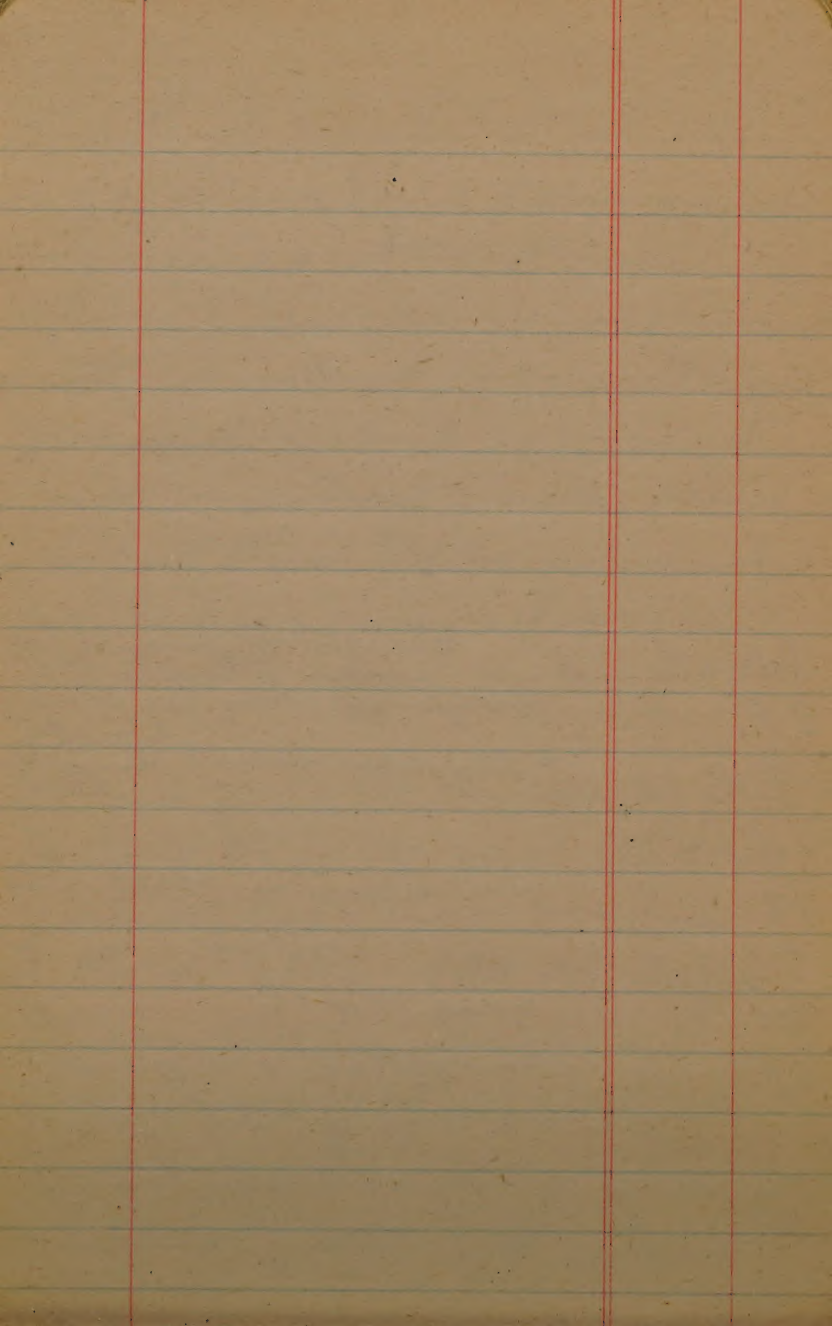
Mustard paste is made
out of mustard flour and
soy sauce. Sometimes
chopped green onions are mixed
with mustard or sometimes
ground radish is mixed
with mustard paste. When
mixed thus the combined
paste is mixed with
the Natto and eaten with
rice.

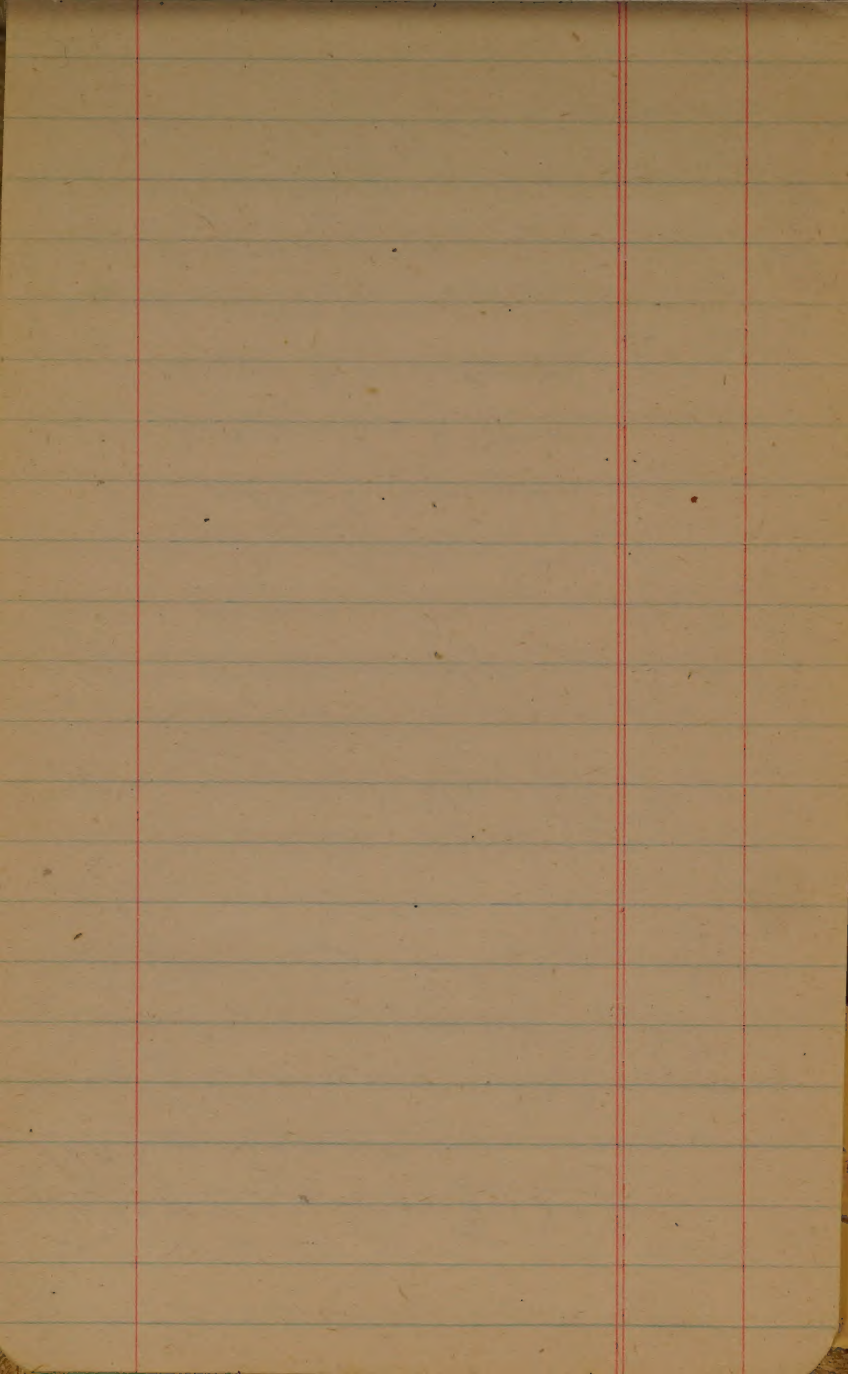
^{no} Name of Natto made by this
factory as only wooden boxes
of natto are given names.

Uses 7 or 8 100 lb. bags
of soybeans daily in
making natto. No record
of no. of packages sold.
Some days only 4-100
bags of beans are used.

About 1000 packages are
 made from 100 lb. bags
 of soybeans. Each package
 sells for 5 cts each.

2 packages soybeans	✓	10
10 " yuba bone	✓	10
3 " Watts	✓	15
Car-fare To Watts b'n	✓	07
" " from "	✓	07
Package paper envelopes	✓	25
Boiled Soy bean Mixture	✓	15
Official postage	✓	19





Tuesday - Jan. 7, 1930.

Noda, Japan.

Left hotel about 7.30 and
took train for Ueno Sta.

Left Ueno Sta, Tokio 8.15

Ar. Nodamachi, Japan 9.58

At the Noda Sanyo factory
office we met Mr. Ota the
assistant Manager.

Left Nodamachi 2 44 ^{pm}

Arr. Ueno. Sta 4 30

Car fare Jurackicho & Ueno

" " Ueno & Nodamachi

" " Nodamachi & Ueno

" " Ueno & Jurackicho

3 small casks miss ✓ 3 00

4 small miss jars ✓ 1 20

Official postage ✓ 32

Left Ueno Sta. and about
nine o'clock we got fire

views of snow covered Fuji
from the left car windows.
The mountain was kept in
sight for about one hour.

Arriving at Nodamachi
we went at once to the Noda
Soy Sauce factory, which
company now is incorporated
and controls all the soy sauce
industry of the place. Previously
there were many sauce companies
in this place but now all are
joined in one. The Noda Co plant
covers many acres of ground
at the railroad. The Noda
products are on sale at the
station newsstand. This in
jars of various sizes, and
soy sauce in different sized
bottles and casks.

At the Noda factor we were
first met by Mr. Uta the

assistant manager of the
Co., to whom cards and a
letter of introduction from
Mr. Akk were given. Other
officials of the company came
in Mr. Mugi and Mr.

Mr. Akk talked regarding
the soy sauce industry in
Japan and the U. S. Mr. Akk
was concerned as to whether
men or women in the U. S.
preferred to prefer the soy
sauce and if there was any
objection from the American
people to the odor of soy
sauce.

Mr. Akk were then taken out a
considerable distance from
the general office to the
main factory and to the

Office of the chief superintendent
We first taken to the
room where the wheat and
soy beans were being cleaned
by seed cleaners. These grains
were being brought through
pipes from the grain storage
houses by means of pressed
air.

The soy beans being used
were brought from Manchuria
and were a mixture of
medium-small yellow
seeded varieties. The beans
were very dirty being full
of trash. About 20,000
bushels of beans are used
yearly by this company.

The wheat which is rather
a small grain was obtained
from Canada. Wheat is
also obtained from Japan

But this can not be secured
in sufficient quantities
so wheat has to be bought
from Canada and even
Australia. About 20,000
bushels of wheat are used
yearly.

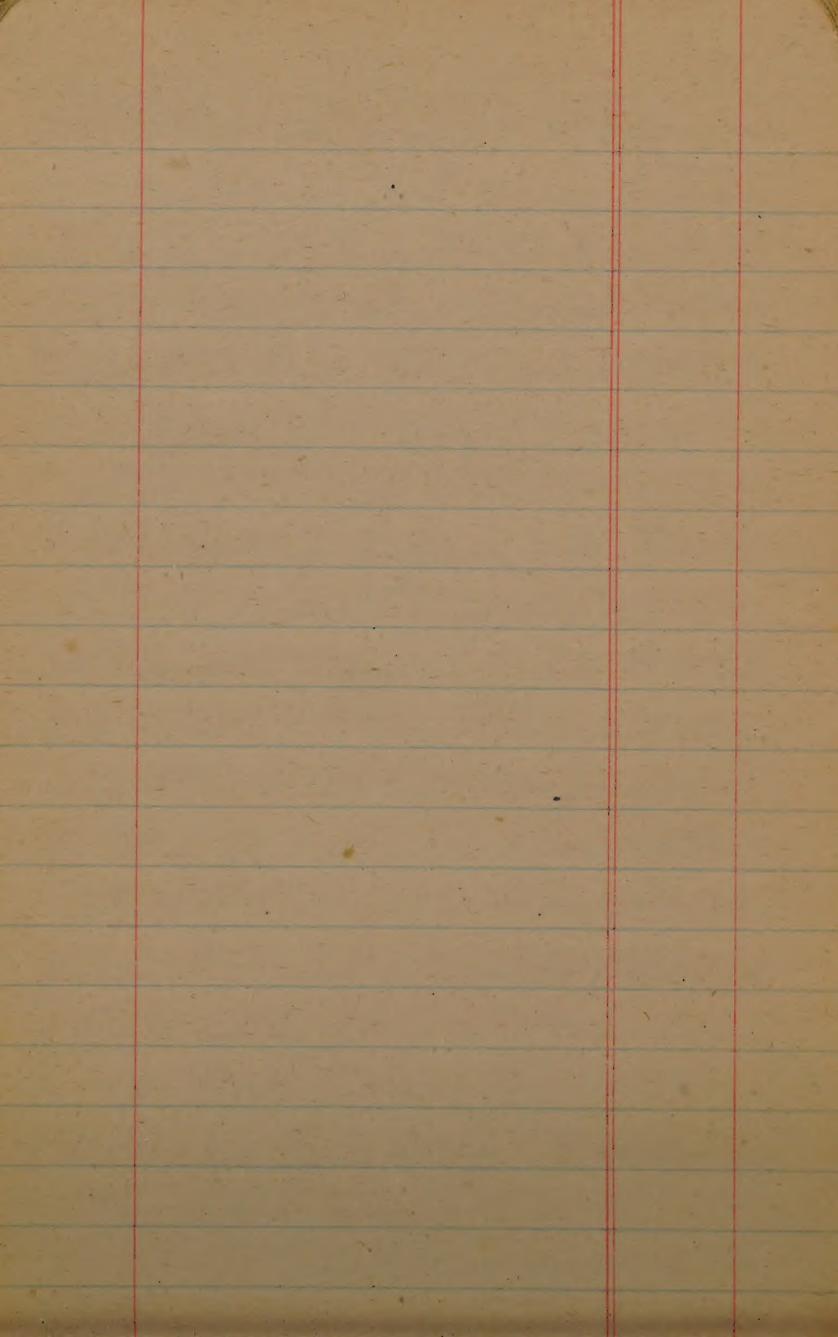
We were taken to the
wheat roasting room
where the wheat was being
roasted in automatic
roasters. It was piped
to the roaster and also
away from the roasters.

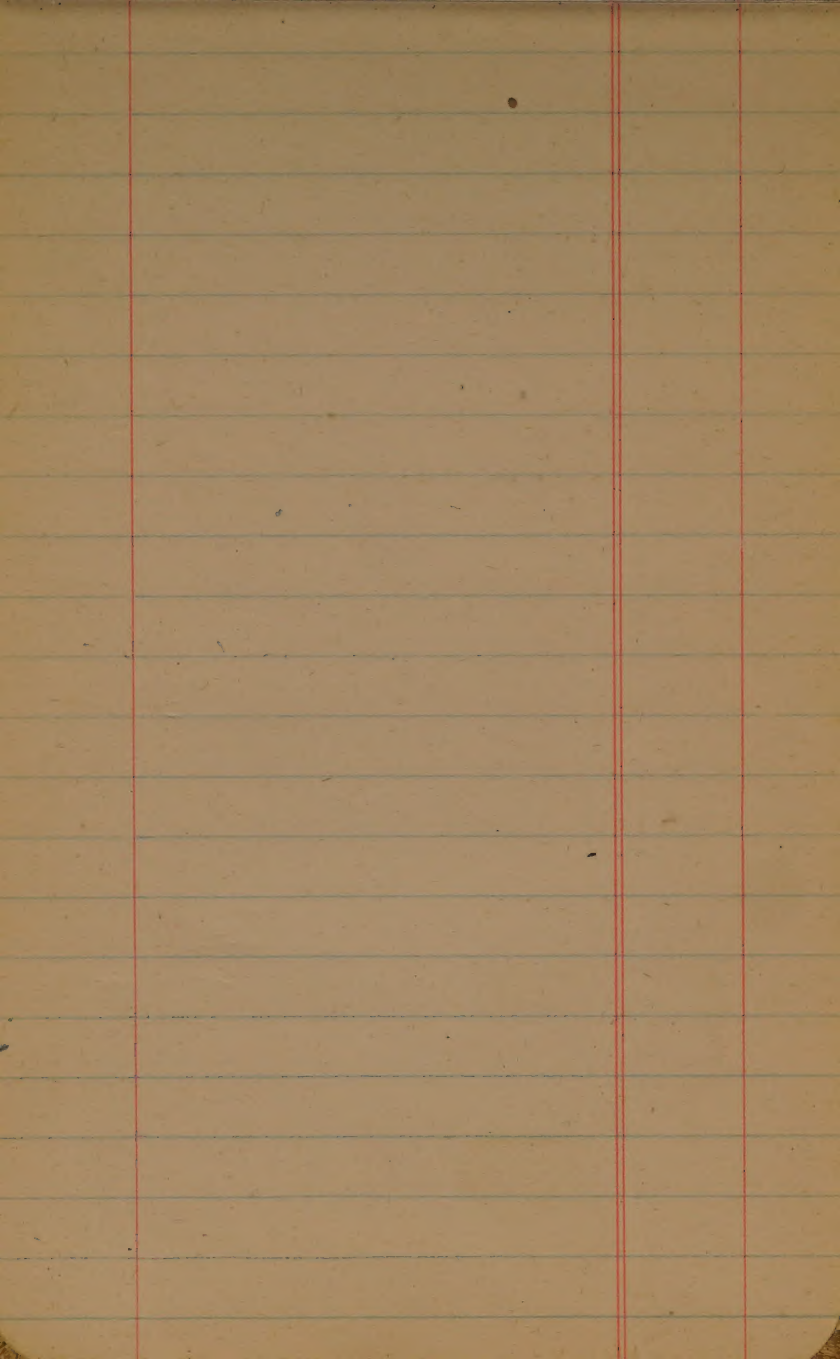
12 automatic cake fillers
1500 rats for wash holding
110 broken each.

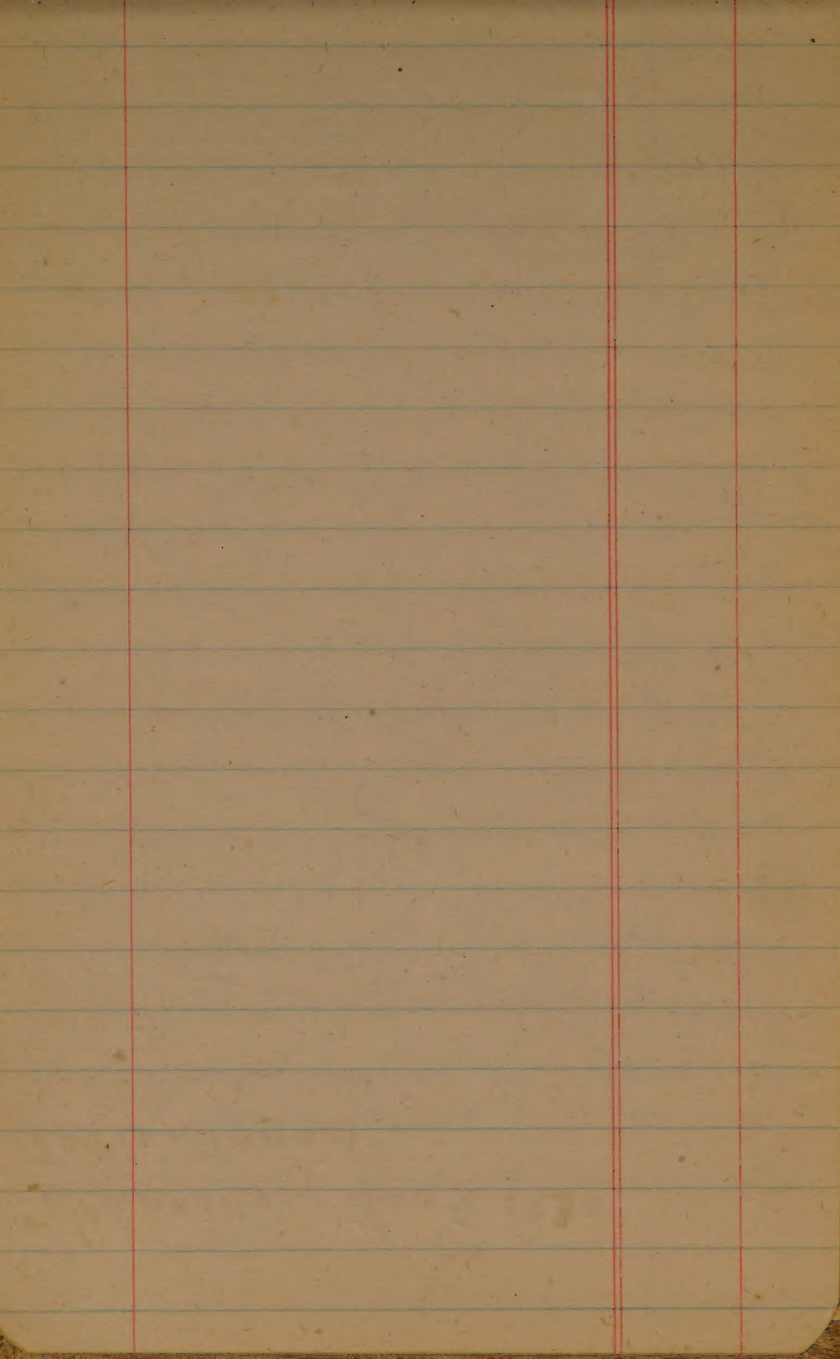
12 large Tanks for cooking
the beans.

30 fermenting rooms
Baker for fermenting

rice & cooked soybeans
are $12 \times 18 \times 1.5$ in.







Wednesday. Jan 9. 1930.

Tokio. Japan

Cool and clear. Worked on
Expense journals to break-
fast. On way to the office
saw a Japanese woman
toasting or boiling slices of
soybean curd on an iron
grate over a charcoal fire,
in front of a bean curd
factory.

After reaching office,
asked Dorsett and Sugitake
to go to obtain pictures.
Arriving at the bean curd
place we found that they
had finished toasting the
bean curd for the time
being but would toast
another batch in half

an hour. In the interim
time I obtained some
information as to the
method of bean curd
manufacture and a
sample of the beans used.

The variety used is a
medium-sized greenish-
yellow seed obtained from
Dairen, Manchuria. The
beans are soaked for
about 15 hours in the
winter and from 10-12
hours in the summer.
The soaked beans are
ground with the ordinary
stone mill electrically driven.
The ground mash is then
boiled for about $1\frac{1}{2}$ hours
over a slow fire. To precipitate
the proteins, solutions
of lime and magnesium

sulfate are used. The lime solution (cold) is first added to the hot soy bean milk, the solution being let run slowly down the paddle and then the milk is stirred gently. A cover is placed over the tub and let set for about 5 minutes. Then the magnesium sulfate solution (cold) is added and left stand for about 5 minutes. The proteins are now precipitated and a loosely woven bamboo basket is placed in the tub and much of the liquor removed without taking out of any of the bean curd. The curd is

now taken out and placed
in a oblong press in which
a cloth strainer has been
placed. When the press is
full, the ends of the cloth
are lapped over, and
the weight added to drive
out the water and compress
the bean curd in a long
oblong block. When this
has been done, the slab of
bean curd is placed in
wooden tubs of water.

The liquid taken off the
bean curd before pressing
is used for washing
the tubs, boards, and
other utensils in the
manufacture of the curd.
It is considered an
especially valuable water
or solution for greasy

placing about ten of
the slices on an iron
grate over a charcoal fire.
After becoming slightly toasted
they are turned and toasted
on the other side, and then
placed in a tub of water.
This toasted form of curd
is called."

The fried form of curd
is made into two forms,
both from rather more
thickly slices than most of
the bean curd factories use.
The thick slices of bean
curd are fried in deep
mustard oil. In both
forms, chopped up
vegetables, such as carrots,
are added to the curd. The

fresh blocks of bean curd
are washed up and then
the chopped up vegetables
are added. Then the mixture
is placed into the rectangular
press and pressed firmly
into blocks.

One form is made into
round pieces called
"Ganmodsi" which after
being fried is about $4\frac{1}{2}$ in.
in diameter and $\frac{3}{8}$ in.
thick. Such a piece sells
for $\frac{1}{2}$ sen.

The other form of fried
bean curd is oblong.

$8\frac{3}{4} \times 3 \times \frac{3}{8}$ in. and is
called "Abugage". Such a
piece sells for $\frac{1}{2}$ sen.

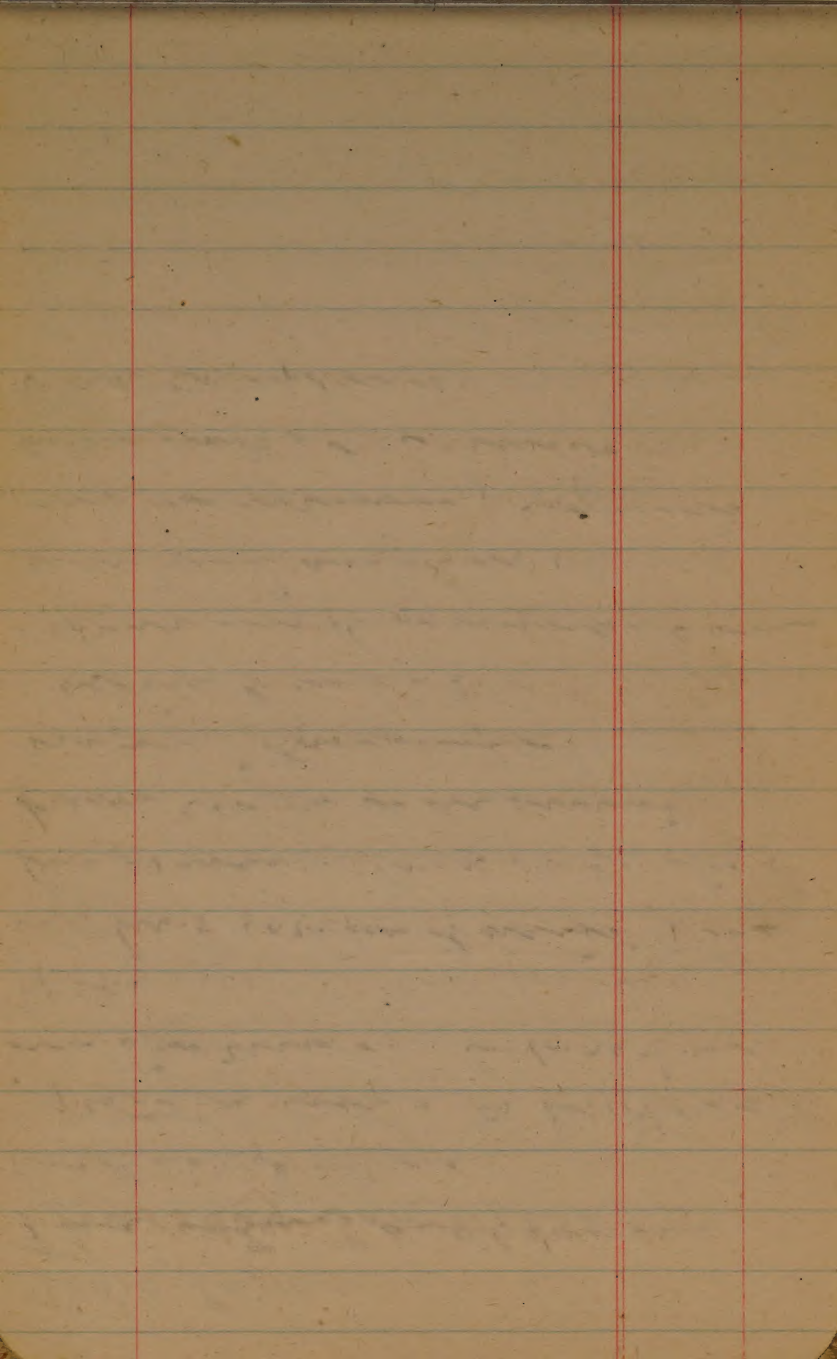
This fried bean curd
is used in soups.
is dipped in soy sauce

and eaten, and mixed
with vegetables.

Motion and still pictures
were taken of the toasting
of the fresh curd. Prices of
the two forms of ferried curd,
the toasted curd, and the
fresh curd were purchased
for photographing.

After lunch seed note
cards and product cards
were written up.

In the evening, expense
account for December
was completed.



Tokio. Japan.

Thursday - Jan. 9, 1930.

Cold and clear.

Started letter to Dr. Horvath in the morn. before breakfast.

After breakfast went to the American Consulate to have expense account sworn to and also received mail.

During day worked on writing and packing up soybean products. also helped in photographing. Photographs were taken of 16 different products. Mailed expense to Joe Mahoney.

Postage —

In the evening wrote
up notes on soybean
seed samples, and also
soybean products.

Friday - Jan. 10. 1930

Krawa. Japan.

Cold and clear

Left Tokyo

8.45 AM.

Ar. Krawa

9.50 A.M.

Soybeans for vegetable soybeans are planted in hot beds about the middle of April. These plants are transplanted outdoors in open ground as soon as the weather permits. The plants are planted about 12 in. apart in rows about 24 in. apart.

If cold weather continues and the plants in the hot bed become too large, the stems are folded at and transplanted. This is done for early vegetable soybeans for the market.

In the Saitama prefecture no many soy products are made.

The farmers make their own
miso. Yellow and black soybeans
are also used boiled with other
vegetables like the Goto mixture
of which a picture was taken.

Arriving at Kawan we
went at once to the Saitama
Expo. Sta. where we met the
Director Dr. . . . and Mr.
Hasegawa, the plant breeder.
We also met Mr.

The Horticulturist. We were
promised 2 or 3 tubers each
of the Japanese sweet potato
varieties, and also scions
of persimmons, and pears.
The director sent out and
had lunch for us. After
lunch we talked about
general crops in Japan
and the U. S.

after this we went out

to view the potato storage
jits, hot beds, and forcing
jits. The storage and
forcing jits were dug in
the ground at considerable
depths. Ginger, celery,
and Udo are quite generally
forced.

After viewing the various
experiments we took the bus
at Urawa and went to
_____ where we visited
a farm to see the practical
forcing of celery, ginger
and Udo. Not much was
seen, other than the ginger
jit as the jit entrances
are covered with rice
straw mats and bundles
about 3 P.M. as it begins

to get quite chilly toward
even down.

After returning to Uruma
we purchased some soy bean
products at the station.

The product is the puffed
rice covered with with
sweetened roasted soy-
bean flour.

1 box rolls-small	✓	1 00
2 pkgs rolls-med.	✓	70
1 " rolls-large	✓	50

We took the train at
Uruma at 3.29 P. M. and
arrived at Keno Sta at
4.10 P. M.

We went to the food dept.
of the Matsugakaya store
to look for products. We
found several soy bean
products of which the
following were bought.

1 pkg sugared coated beans	✓	50
3 jars Tomokumame	✓	80
5 pkgs ^{roasted} soy bean flour	✓	50

at the store they also had
geraniums done up in
real rice straw packages
quite similar to the Natto
packages. There were also
cherry blossoms jirckled
in glass jars.

After the visit to the store
we went up the streets to
look for soy bean products.
at several confectionary
stands we found small
rice cakes in which were
intedded small round
black roasted soy beans
(like the Ebony variety).
at one confectionary stand
we found some sugared

covered roasted soybeans.
The lady running the place
said that the beans were
soaked for about 12 hours.
The soaked beans were
then dried for a short
time and then roasted.
After roasting, the beans
were rolled in pulverized
sugar.

Car. fare - Iurakuchō Sta
to Atsuna

Atsuna to Iurakuchō

Sta. Tokyo.

Bus. fare Atsuna

to

arrived at the Iurakuchō
Sta. at 5.30 P.M.

In the evening wrote up
picture notes, and soy bean
product note cards.

Saturday - Jan. 11, 1930.

Tokio, Japan.

Cold and clear.

Worked on notes for
soybean products until
about 11 A.M. when Mr.
Suyetake came and we
went to the Shiroyai
Dept. store on the Buza
to look up soybean
products. We found the
food and confectionary
departments to contain
a wide range of products
of various kinds.

The following soybean
products were obtained

4-pkg. dried bean curd	40
3 cans candied ^{oil.} soybean ^{in sugar}	1 50

2 boxes soybean candy	2 00
2 pkg candied adzuki beans	60
2 " rice coated soybean balls	60
1 box bl. candied soybeans	30
2 small cans almon	50
4 cans yellow soybean in syrup.	2 00

after lunch went to the office and worked on soybean and other products. Wrote up notes and numbered samples.

In evening wrote up notes on negative of soybean products, and introduction cards for products.

Received three pounds of Kudzu seed from The Seed Co., Yokohama.

Sunday - Jan. 12, 1930.

Tokio, Japan.

Upperal postage

20

Surviving in the morning
and turned into rain
later. Snow is very much
like it Washington for
it does not stay very long.

Wrote official correspondence
in the morning, letters
to Hollisally and Lee.

Wrote Holly regarding
the Agronomy meeting ~~that~~
could not get back in time
to lead a soy bean
symposium.

Wrote to Lee advising
him to cut down the
plots to road rows and

The new introductions
to 8 foot rows.

In the afternoon
went shopping and
purchased box of Kudzu
and Adzuki bean flour
packages, also some
soy bean candy.

Adzuki bean and	-	75
Kudzu flour box.	-	

Soy bean candy	-	25
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In evening worked on
soy bean product notes.

Monday - Jan. 13, 1930.

Tokio - Japan.

Cold and clear

Worked on my bean product notes before breakfast.

Went to the office and wrote up my bean products, photographs on my bean products, and wrapped up my bean products for sending back to office in Washington.

About noon went to a bean curd factory near the office. Dorsett took some still pictures of scenes showing mill for grinding the beans, a tub of milk, fried bean curd, and the boiler for boiling

The beam wash for
making milk.

Motion pictures were
taken of the man dipping
the coagulated material
from the tub into the
boxes for draining and
pressing the curd into
form.

After lunch worked on
sage beam products, writing
and checking up note
cards.

44764

65

66

67

68

69

} Cord factory
slices

Tuesday, Jan. 14, 1930.

Tokio, Japan.

Cloudy and rainy in the morning. Before breakfast wrote on typewriter notes from notebrooks on Japanese soybean products.

After breakfast went to office and help fix up soybean products for shipment to U.S.

After lunch went hunting soybean products. A beverage mixture consisting of coarse tea leaves and roasted soybeans was found at the Matsuzakaya Dept. both in paper and tin packages. We also visited the Shirogai

Dept. store is where they have
many soybean confections.
There were boxes of candy -
small blocks of our peanut
type of candy. In addition
to peanuts, the candy had
small round black soybeans
with green cotyledons, ^{greenish} yellow
soybeans, puffed rice, sorghum
millet, and wheat. Arrangements
were made to obtain two
boxes of the two kinds of
soybean candy alone.
Three small cans of Almer
were also obtained to send
Dr. Taylor and Mr. Ryerson.
After our department store
visit we went to another
section of the city to find
places where the roasted
soybeans were made.
We found one store

having roasted soybeans
imbedded in rice flour
paste and baked. These
small balls were red, buff
and brown, and some of
the brown had pieces of sea-
weed on the outside. At
this same store were some
rice cakes - brown rather
hard wafers with five or
~~six~~ roasted soybeans
in them. The proprietor of
the store advised us that
there is in Tokyo an
Association known as
the Roasted Bean Association.
We were referred to some
other bean shops.
Several of these shops

were visited but we only
found two kinds of
roasted soy beans - one
over which had been
poured a white sugar
syrup and the beans
stirred while the syrup
was being poured on the
beans. At all of the places
visited, the same process
of roasting the beans
was practiced. The beans
are first picked over by
hand and then thoroughly
washed. After washing
they are soaked over night.
After the soaking, the beans
are dried of the surplus
water and then roasted
over a large corn popper
like utensil over a char-
coal fire. The skin of the

boils 4 hours
30 pounds
10-15 but

Wednesday - Jan. 15, 1930.

Tokio. Japan.

Cold and clear.

Write Sakata.

Ym



The same process for making
tofu is involved in the making
first methods of making Yuba.
Yuba.

Uses yellow variety of soy bean
Soaks dried beans as long as
possible - Soaks 24 hours. In
summer 10-15 hours is
enough for soaking.

Boils bean in much
water boiled before bean
crushed is added and then
boiled for 20 minutes. Then
milk is strained off and
put in copper pans to

boil slowly over charcoal
fire. As soon as film forms
it is taken off with long
stick and hung on rack
over pan (about 3 ft) to dry.
About four hours are
taken for each pan. About
30 films can be taken off but
the first 10-15 are the best
and of the light yellow color.
As other films are taken off
they become darker. In
summer coloring matter is
added because customers desire
a darker yellow while in the
winter the darker yellow is
desired. The guba sheets are
about 10 in x 24 in, and sell
for 8 ¢ each. The sheets
as they are taken from the
frames are 20 x 24 inches.

4 classes 300 mills.
2 oil \$40. per ton at Seattle
1 crude hydraulic machine
3 Refined. 2000 tons now - much - interest
10000 - "

Balfour & Hall Co. N.Y. City
representative of Okura Oil
Corporation - handling bean
oil cake -

Balfour - Guthrie - San Francisco
representative of Okura Oil Co.
1500,000 tons bean cake - Japan
500 00 , beans.

Increasing exports from -

After our visit to the Yuba
factory we went to the
section where many kinds
of beans are roasted. Some
roasted puffed beans with
pieces of seaweed were
purchased. Other beans
we had already obtained
samples.

after lunch we went to

The headquarters of the
Nisshin Oil Mills Ltd.
where we met Mr. I. Sera
one of the directors. He very
kindly gave us information
concerning the Company.
The Nisshin Mills. Co. is
simply of the Okura
Corporation which consists
of several oil mill companies.
This companies has 300
mills scattered throughout
Manchuria of which a large
number are in and
around Dairen. This co.
uses hydraulic presses
in all of the mills and
these are imported from
Piquet, Ohio.

The Nisshin Co. has four
small mills in Japan;
one in the Kyushu Islands.

one near Kobe; one near
Shizuoka, and one near
Tokyo. Beans for crushing
in these mills are brought
from Manchuria. The beans
of Japan, Hokkaido and
Chosen (Korea) are all
used for food purposes.

Japan imports from
Manchuria about
1,500,000 tons of bean
cake yearly and about
400,000 tons of beans. The
Manchurian beans are
used only to a small ex-
tent for crushing, many
being used for soy sauce,
bean curd, natto
and miso.

The Nisshin has trade
representatives in N. Y.
City and in San Francisco
handling all kinds of
Manchurian products.
The company handles
four grades of oil; crude,
and three grades of re-
fined oil. The highest
grade of refined oil
is used as a salad
oil and is sold principally
in Germany, France
and to a small extent
in the U.S. The other grades
are used as cooking
and frying oils. The
crude oil is used as a
floor oil, making linoleum,
lubricating machinery,
and as a lighting oil.
In Japan there is very

small demand for
the high grade - salad
oil - as dressings for
salads are not much
used by the Japanese.
The soy bean oil since it
has been refined for
cooking and refining
has displaced cottonseed
oil in the Japanese market.
Cottonseed oil came from
the United States.

The company has a contract
for shipping 10000 tons of
bean cake to the U.S. from
Nov. until Mch. 1. They ex-
port about 20,000 tons of
bean cake to the United
States yearly.

Germany in previous years
imported much oil and
beans from Manchuria
but during the past few
years has been importing
the beans almost entirely.

So many beans are being
taken to Germany that the
Chinese government has
under consideration an
export duty on soybean seed.
The large export of soybeans
has had a serious effect on
the oil and oil cake mills
in Manchuria. It was
said that in previous times
bean cake was the more
valuable product but in
the last few years, bean
oil has been the more
valuable.

The oils sold by this Co.

are put in quart glass
bottles and $\frac{1}{2}$ gallon tin
cans. Samples of Tin
cans of the oils put up by
this company have been
furnished us for exhibit
purposes. We were also
furnished cards of introduction
to the oil mill in Sairen

After our visit to the
oil mill office we went to
the Matsukoshi Dept. Store
to see if any soybean
products could be found.

The following products
were purchased today

Yuba - 8 sheets	-	80
Roasted fluffed beans	-	50
Soybean seed	-	45
4 packages Kudzou turnip starch	-	2 00

3 packages jute rolls	✓	54
1 packing mixed sugar	✓	50
washed beans	✓	

Official postage	✓	20
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Thursday - Jan. 16. 1930.

Tokyo, Japan.

In morning before breakfast, wrote letters to Dr. Peters and L. A. Dean (Rome, Ga) relative to 3 lbs. of Kudzu seed sent in under D. 8244. No. 3288.

After breakfast went to office with many soybean products. wrote up notes on soybean products while Barrett was making photographs of them.

1 jar soybean & Fuyukenn ^{green}	45
1 " " & soybean ^{black}	55
1 jar of H. & green soybean miso	80

After lunch, went to the different markets to look

up mung bean and soy bean
sprouts. All markets visited
were found closed due to the
servants' holidays (15th 8/6th).

We found that soybeans
are not used very extensively.
From some market men whom
we found, more sprouts
are used in other seasons
than in the winter. We
visited many vegetable
stores but could find
neither mung bean or soy-
bean sprouts. The proprietors
for the most part did not
handle sprouts.

We learned that sprouts
are not used much in
Japanese dishes. They are
used to some extent
in gomokumeshi - which
is a mixture of vegetables.

sprouts are used in
salads and a few vegetable
dishes. However, sprouts are
not used nearly extensively
by the Japanese as by the
Koreans and Chinese.
While in Korea, soy bean
and mung bean sprouts
were to be found at all
vegetable stands. Also in
Korea, mung bean as well
as soy bean and adzuki
beans were found at all
grocery and grain stores.

Radish sprouts and
mustard seed sprouts are
also used in Japan to a
small extent. The buck-
wheat sprouts are used in

a similar manner to
curing bean and soy bean
sprouts. Radish sprouts
are used for garnishing
and also in soups.

Many confectionary stores
handling bean products
were visited but we have
purchased all of the products
seen. At one food store we
found small glass jars
of black soy beans and
yellow soy beans which
had been boiled in syrup.

Friday, Jan. 17, 1930.

Tokio, Japan.

Cloudy in the morning, Cool
Yuba factory man 1 00

In the morning about 8,30
went to a yuba factory at a
considerable distance from the
hotel. Arriving at the place
we found the proprietor
busily engaged in taking
the yuba sheets from the
copper pans of oyster steam
units. When the film had
formed, he took a short
wooden piece like a knife
and ran it around
the edges of the pan, thus
clearing the films from
the sides of the pan. A

long slender (18 in.) piece
of bamboo ($\frac{1}{4}$ in. thick)
was attached under the
film which was then hung
over the frame to dry. There
were six of these frames over
a charcoal fire. The mill
was not allowed to boil,
the fire being slow. From
10-15 films are taken from
each frame, as high as 30
films can be taken but
after 15 the quality and
color are poor. About
4 sacks of charcoal are
used per day in running
the furnace and this is
sold at 1.50 yen per sack.
The films or yuba sheets
are about 16 x 20 inches
and sell for 16 sen each.
The proprietor also makes

The yuba rolls, small
yuba sheets, yuba Bon Ties
and yuba flakes.

While tending the mill
press, the stone grinder was
crushing the soaked beans
very fine, into the bean
hopper, a steady stream of
water (1/4 in. diam) was
flowing steadily.

Still and motion pictures
were taken.

From the yuba factory we
went to the Chikuma
Miso Factory which has two
large factories for the making
of soy bean miso.

This company uses a medium
sized yellow bean obtained

from Manchuria. The beans
are first soaked for 24
hours. The next day the beans
are placed in a large wooden
boiler which is over a vat
of water. Steam from a pipe
enters at the bottom of the
tub and a cover with
gumming is placed on top of the
tub. The beans are steamed
for 24 hours which makes
them rather soft. Each
tub holds 70 bus. of dry
beans when soaked 24
hours in water. This would
probably amount to about
200 bushels of soaked
beans. After 24 hours of
steaming the beans are
placed in ^a piles on thick
rice straw mats. The pile
is also covered with rice

straw mats which gives them a further steaming. After being in this pile for a few hours the beans are mixed with rice malt and salt. The mixture is then placed in large tubs to cure.

In the soaking of rice, the rice grains are about $\frac{1}{2}$ polished, that is about $\frac{1}{2}$ half the bran is taken off. The rice is then steamed for a few hours and placed in trays about 2 in. deep - 15 in. wide and 36 in. long. These trays of steamed rice are placed in the dark fermenting room which is kept at a

Temperature of 90°C and
The rice is about 80°C .

These trays of rice are kept
in the fermenting room
2 days.

After the malted rice has
become cool, salt is added.
To each $2\frac{1}{3}$ bushel of malted
rice $1\frac{1}{3}$ bushel of salt is
added.

The company puts out
sweet and salty miso.
In the making of sweet
miso 6 parts of boiled
soy beans and 4 parts
of the rice malt-salt
mixture are used. The
mixture is allowed to
cure from 2-3 weeks.

For salty miso, one-half
boiled beans and one-half

rice malt-salt mixture
are used and the mixture
allowed to cure about
3 months in large tubs.

After curing four
grades of miso are made.

- 1- Salty miso - unground.
- 2- Salty " - finely ground.
- 3- Sweet " - " "
- 4- Sweet " - unground.

The miso is packed in
large tubs holding 200 lbs.

The company also makes
a special grade of miso
from the *Tsuranoko*
variety of soy beans
obtained from Hokkaido.

We were taken to the 2nd
factory where we were taken

through the rice-malt
fermenting rooms. The
rooms are heated by steam
which gives the rooms a
very high humidity. When
in there it was like a
Turkish bath.

Here given the following
samples of products.

1. Boiled or steamed beans.
2. Malted rice after the
salt had been added.
3. Malted rice without
the salt, just as it came
from the fermenting room.
4. Sendai Miso - finely
ground and salty.
5. Koshimi Miso - finely
ground sweet miso.
6. Sendai Miso - Underground
coarse salty miso.

7- Special grade Sweet
Miso. Coarse unground.

The salty forms of miso
are not only used for
soups but also for
preserving vegetables,
meats, and fish. The
sweet miso is used
especially for soups.
The miso soup is
generally used for
breakfast and generally
has some cooked
vegetables in it.

Large quantities of tubs
of miso were being taken
away from the factory.

About 200 bushels of
dry soybeans are used

daily by this company
and also the same
amount of rice.

Tubs that are sent around
the city have only paper
glued over the top while
those sent out of the city
have wooden heads put
in.

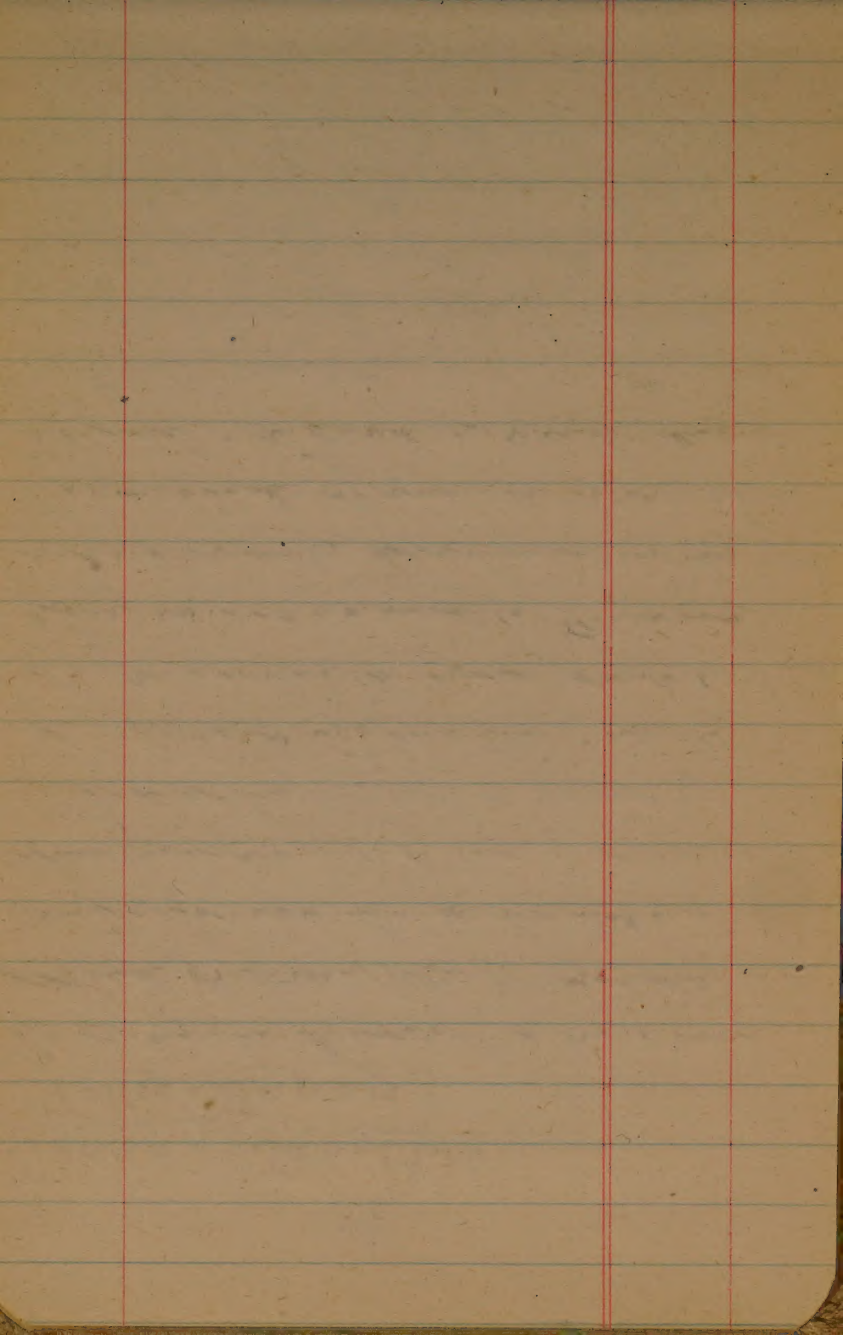
Returned to office and
packed up soybean
products, and wrote up
notes on other soybean
products. Sample of Tsurunoko
was given us by the Miss.
Co. In evening wrote up
notes.

Saturday - Jan. 18, 1930.

Tokio, Japan.

Cloudy and cool. Wrote up notes on soybean products in the morning and notes on pictures of soybean products.

Went to office in the morning for a short time but was taken sick and returned to room. During afternoon and night wrote some official correspondence.



19

Sunday - Jan, 1930.

Tokio, Japan.

Cool and clear. In the morn
about 9 A.M. Mr. Miyatake
came for us to go to Mr.
Akiyama's.

We were served a purely
Japanese dinner. They had
soybean mash from which
soy sauce is made. This is
used with rice and fish.
Two kinds of miso were also
served - a brown and a
white miso.

Returned about 3 P.M.,
and wrote letter to Dr.
Pieters, wrote up Nos.
36 and 37 Black and White
Motion Picture Expts.

also wrote up my bean
product notes.

Wrote to Subata Seed Co.
acknowledging receipt of
3 lbs. of Kudzu seed and
requested bill for same.

Monday, Jan. 20, 1930.

Tokyo, Japan.

Clear and cold.

Sitting of needles

50

Received letter from
Carter regarding the pro-
gress of the soybean work
in the states.

Received in the morning
a large bag of soybean
selections and varieties
from the Tokachi Branch
Station, Utsunomiya, Hokkaido,
consisting of 146 numbers.

Assigned numbers
of 3500 and 3600 groups
to these varieties.

Worked on doing up
package of soybean

products collected during
the past few days for
shipment to the states.

In the evening wrote
up notes on some of the
Toxochloa samples.
Wrote Dr. Pretter concerning
work and also relative
to the *Gossia* sp. in Korea
which he is so anxious
to obtain.

Tuesday - Jan. 21. 1930.

Tokyo, Japan.

Cool and clear. In morning went to the office and worked on soybean and samples received from the Tokachi Branch Exp. Sta., Utsunomiya, Hokkaido, Japan.

Finished numbering them and in all we received 146 varieties and selections. These represent the varieties most generally grown in Hokkaido and the best selections the Tokachi station is working with.

In the evening wrote up notes on Tokachi soybean varieties

and selections.

Wednesday, Jan. 22, 1930

Cloudy, cool. En route

Left Tokyo - Shinjuku

Sta., 10.12 A.M.

Arr. Shinjuku, 3.25 P.M.

Tokyo Hotel & Sta.

1 00

R.R. Shinjuku Sta. Tokyo

& Shinjuku, (Bldg.)

Soybeans grown in this
prefecture (Shinjuku) for
green vegetable beans and
for green manure purposes.
For green manure the beans
are brought from the Kiyohara
Islands.

For green vegetable purposes
varieties from Hokkaido
are grown. The Tsatsumi
and a black seed variety.

Mr. Noto and Mr.
called during the evening
and gave some information
on soy beans.

They had a product
brought to the room. Rice
flour paste (steamed), made
into little balls, and
covered with roasted
soybean flour and sugar.
This is also called
"Abikawa-mochi". This
is different from the
same named product
made in Tokyo. In
Tokyo the rice is steamed
pounded in a paste and
then covered with roasted
soybean flour. In some
sections this product
is called "Kinrako".

Coming down from near
Gotemba some beautiful
views of snow covered
Fuzi-yama were obtained.
Along the time were noted
camellias in bloom, and
in the foothills towards
Ukutan orange groves
with the trees loaded with
fruit.

There seems to be quite
an activity in the fields at
the present time. The
farmers are plowing
mostly with the long hoe
→. Occasionally a man
was seen plowing with
an ox.

A large number of

broad beans were noted
planted along the edges
of the rice paddies - both
with paddies with barley
or wheat and bare paddies.
These beans are being
grown for green vegetable
beans.

We stopped at the
Daitokwan Hotel or Inn
which has foreign
quarters & meals. Rooms
are good - Charcoal stoves -
rooms warm - Two very
good meals - breakfast
& dinner - excellent service -
10 yen per day. Japanese
quarters with 2 meals -
6 yen per day.

Thursday - Jan. 23, 1930,

Shizuoka, Japan. ^{Kuno.} Shimizu.

Cold and clear.

Left Shizuoka by bus at
9.10 AM.

Bus fare Shizuoka

to Kuno.

Bus fare Kuno to
Shizuoka.

Arriving at Kuno
we first visited a terraced
strawberry plantation on
a hillside. Strawberries
were being picked and a
motion picture shot was
taken of an old Japanese
picking.

We then walked along
the road, and all along
on the steep hillside

were the terraced straw
bery beds - some with
concrete and some with
cobblestones between which
the strawberry plants were
growing.

Just outside of Kumo
we observed hot beds
in which were growing
cucumbers. The vines were
trained along thin bamboo
poles about 10 in. from the
soil. Cottonseed seed hulls
were used as heating
material with manure.
Cucumbers, about 8
in. long were being picked.
About 20,000 yam worth
of cucumbers are sold
annually from around
this village.

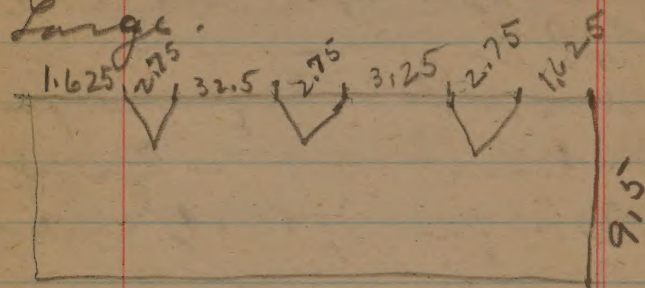
We went to the strawberry
gardens of Mr. Hagihara
who sells about 110,000
boxes of different sizes
yearly which brings him
about 30,000 yen. He
has planted this year
200,000 plants in
terraced concrete blocks
and cobblestone beds on
a very steep hillside. The
berries are about one
month earlier this year
than last. During last
year, he had about
180,000 plants.

at the time of our visit
Mr. Hagihara was busy with
his family and business.

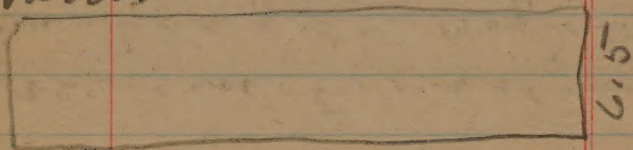
fracking transmitters in
small wooden boxes for
shipment to Tokyo. Motion
pictures were taken inside
with the windows open and
the stop set at 3.6.

We then visited the gardens
or beds and found that he
was using both the copper
stone and concrete block
methods. The concrete
blocks measured:

Large.

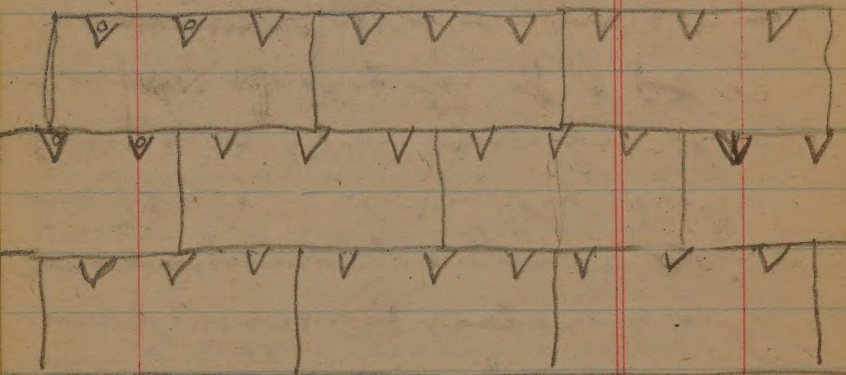


Narrow



1.625-2.75-3.25-2.75-3.25-2.75-1.625

The plants were placed
in staggered rows thru-
out blocks.



The soil used back of the
rock or concrete is rather
a gravelly soil with which
is mixed manure and
mustard oil cake. The
terrace is at an angle of
about 70° . Motion
pictures were taken
close up of the concrete

and the rock terraces, showing
the maturing fruit (The
Mitchell Early Variety). The
Victoria a later variety is
also grown and is just
now beginning to ripen.

Mr. Atsumi had dinner
with us this evening
and remained until
about 9. P. M. He gave us some
interesting information
concerning agriculture
in this section. The hot
beds used for cucumbers
have a depth of 3 ft. of
~~rice hulls~~, manure and
cotton seed hull waste. The
this is placed 5 inches of
soil. The seed is planted
in beer boxes ~~etc~~ which
are placed about 18 in.

of ice hills and about
2 in. of sand on top of the
hills. The seed is planted
about the middle of Sept.
and when the plants
show 2 leaves, they are
transplanted to the hot
beds - $20 \times 4'$. The first
fruit is picked about the
middle of Jan. They are
about 8 to 10 in. long
and sell for 5 c each piece.
This first crop is over
the latter part of Feb.
and the 2nd crop of cucumbers
is then put out. This 2nd
crop has the vines tied
to poles running about
20 feet high. The fruit of

The 2nd crop sells for 2-6
per each and comes in
about May

Shrubby plants in the
terraced beds are transplanted
in October. Each year
the soil and concrete blocks
or rocks are removed and
new soil added. The plants
for transplanting are
grown in the level beds.
rows about 24 in. apart
and to plant 8 in apart
in the rows.

Friday. Jan. 24, 1930.

Shizuoka, Japan.

Mild and clear.

Shizuoka Agr. Expt. Sta.,

Kurosengoku variety of

soybean used usually

for green manure, seed

In this prefecture do

not use this variety for

green manure but grow

for seed for other prefectures.

Days to maturity - 170 - 180 days

Sown in June and

harvest in November.

Get more for seed of

this variety than they

pay for seed from

chosen for the Tansen

variety.

Probably originated in
Formosa. Does not yield
heavily in seed but gives
good growth of forage.

Soybeans for green manure.

Soybeans are planted
between rows of barley
or wheat when the grain
crops (about April) when
the spike coming
out. Shida Co. uses
many soybeans for
green manure. The time
of turning under has
been tested. Grain is
harvested about middle
of May and the plants
bloom shortly thereafter.
Rice is planted in June.
The agr. Sta found that

The best time to turn under is when the young pods have started. Rice growers cannot wait until then on account of having to plant rice about the first of June and plants are in bloom at this date.

For seed the Kuroengoku is grown along the edges of the rice paddies and about mulberry patches, as the variety takes an entire season, and the land in this prefecture is so intensively farmed (5-6 crops) that the farmers cannot afford to grow this variety on their

good land, (B.M. #3736)

The Kurosongokin, is
grown to some extent on
mulberry land for green
manure. In Shida
Co. during the Tokugawa
administration (60-70
years ago) encouraged the
growing of green manure
crops in this county. It
gradually increased and
today Shida Co. is leading
county in this prefecture
for using soybeans for
green manure.

For green manure.
(B.M. #3733)
Chasengokin - small
brown variety also used
for green manure. Takes
about 5 mos. to mature
with habit much like the
Kurosongokin.

The black is the only one
grown by the farmers for
green manure. The brown
being only tested at the
station during the last
three years.

Green vegetable beans.
The only variety grown
is the Furisode - yellow,
large with prominent
brown hilum - obtained
from Ks Kkaiilo.

For green vegetable purposes,
the beans are planted on
edge of dryland or between
rows of other vegetables.
Planted about the
beginning of April.
Are ready for market

the latter part of May.
Beans are not shipped
but are used locally.

Picked for green beans
when beans are full
grown but first crop
is generally picked
a little earlier. Successive
plantings are made during
the season.

In this prefecture
soybeans are not grown
very largely for seed. The
beans are optimally
used for miso, tofu,
soy sauce, and the seed
mostly comes from
Chosen. Except the green
vegetable variety which
is imported from Hokkaido.

Green manure seed.

M. Takaiishi

Director of Shizuoka
Agr. Exp. Station
Japan.

Ortularias.

Lupines.

Vetches.

Clovers.

Green manure crops
in Shizuoka Prefecture.

Seuge is mostly grown
but station is working
mostly on lupines.

Seuge is sown between
late of Sept. and October
in rice paddies. Seuge
seed is sown broadcast

on rice paddies. Over
 1/4 - 3 shō of seed is
 sown (12 shō to the
 acre - a little over one-
 half bushel). Red clover
 is not grown.

3 boxes Abikawa 75

4 " Soy 80

R. from Shuzioka To
 Shimbashi Sta. Tokyo. (3)

Arr. S. " " 7.45 P.M.

Lft. Shuzioka 2.16 P.M.

Tax fare To hotel Ito

Shimbashi Sta. Tokyo with
 official luggage 1 00

4 phgs. soy beans at 5 sen each 20

Saturday - Jan. 25, 1930
Tokyo, Japan.

Cool and cloudy. In the morning went to the office and found a collection of soybean varieties from the Iwate Prefecture Exp. Sta. Morioka, Japan. This is a collection of their best named varieties, selections and crosses and consists of 25 nos. There were given 24M nos. of the 3700 group.

In the afternoon photos were taken of the products purchased in Shizuoka. The spool of 100 feet taken of strawberry culture at Kuno and Shimizu.

was developed. It has
apparently turned out
good for even the inside
views appear good.

In the evening wrote
introduction note cards
on the soybean varieties
received from the Tokachi
Expt. Sta., Utsunomiya, Hokkaido.

Sunday - Jan. 26. 1930.

Tokyo, Japan.

Mild and clear. In the morn.
worked on Hokkaido soybean
varieties. Went to the dentist
at 10. A.M.

Mr. Ukami, friend and
student of Prof. Ukagaki
called about 11. A.M. and
went to lunch with us.

In the afternoon went to
Ueno park and went thru
the zoo for the first time.
After coming from the park
looked through many of the
confectionary stores near
Ueno. These stores are very
abundant about these
sections. Soybean candy,

roasted soybeans, sugar
coated roasted soybeans
were found at all of the
stands but we found
no new products.

In late afternoon wrote
some official correspondence,
also wrote notes on the
Inate rep. stu. soybean
selections and finished
writing up the Tokachi
(Hokkaido) soybean selections.

Purchased roasted soybean
cakes and candy at confectionary
store along ginja.

Soybean (roasted) candy	75
Soybean (roasted) cakes	75

Monday - Jan. 27, 1930,
Tokyo, Japan.

Cloudy and Cold

Wrote up some Irate
exp. sta soybean samples
in morning before
breakfast.

Went to office and
finished Hokkaido soy-bean
samples which made an-
other parcel.

After lunch went with
Suyetake a short distance
from to a bean sprouting
place but found that the
proprietor had gone. We
learned of another place
in the suburb where we
went. We found that the

Bean sprouts were grown
in the stone part of the dwelling.
Only mung beans are used.
Formerly the mung beans
were brought from Chosen
but at the present time
the beans are brought
from Dairen.

The beans are sprouted
in wooden casks - first
a small one holding about
5 gallons and another
holding about 20 gallons.
The temperature of the
room is kept at from
75° - 80° F.

The beans are first
washed thoroughly. After
washing they are soaked
in water for 40 min.
at a temperature of
25° C. after soaking

in this small tub, the water is drained off and a heavy rice straw mat is placed on top of the beans and held firmly in place with bamboo sticks at right angles ~~to~~ to each other. But allowing the swelling beans to press the mat upward.

About 3 sho (1.3 to) of dry beans are used in the small tub. The tub after the 40 min. of soaking are tipped up halfway (5) to allow drainage of the water. The beans are kept in

the small tub one day
and then placed in the
large tubs.

In the winter the beans
are soaked in water at
temperature of 25°C for
40 min. morning and
evening. In the summer
the beans are soaked three
times a day, at morning
and noon beans are
soaked in water (21°C)
for 15 minutes while at
night the beans are left
in the water (21°C) for
30 min.

In the summer the
bean sprouts - about
 $1\frac{1}{4}$ in. long - are ready in
about 3-4 days. In the
winter it usually
takes about 7 days.

although the sprouting depends on the weather. If cold the sprouts may be delayed a day or two longer while with warmer weather, it may take one or two days less.

The sale of beans sprouts depends upon the vegetable season. When vegetables are scarce and high, many bean sprouts are sold. With an abundance of vegetables less sprouts are sold.

At the present time 300-400 pounds of sprouts are sold daily.

Later in the spring and
up to June 600-700 lbs
are sold daily. Not many
sprouts are sold in the
summer. Most sprouts
are sold in Feb. March,
April and May.

3 sho of mung beans
give 60 lbs. of bean
sprouts.

Bean sprouts retail
at from 60-80 cen per
10 lbs.

Bean sprouts are used.

After leaving the bean
sprout place we went
about the suburbs and
picked up some soy-
bean products.

Soybean candy patters	75
" roasted candy beans	75
" rice balls	50
" rice cakes	60
" Tin roasted beans & Tea	65

Received letters from
Dr. Pieters, Hollnall, and
Joe Mahoney.

Holly inquired concerning
"Hime Kuse" said to be a
yellow flowered, hardy
form of Kudzu and grew
700 miles north of
Tokyo. I'm looking up

This plant Sugiyake
found it to be No-asuki
(wild adzuki bean) but
also called "Hime-Kuzu"
The technical name is
"*Dumbardia villosa*". It has
yellow flowers, is perennial,
has short vines, grows
in mountainous regions
but has no practical use.
The pods are about 1 in.
long and the seeds are
small and hard. It is
a wild plant.
Official postage

Tuesday-Jan. 28, 1930.
Tokyo, Japan.

Bean Sprout

The young bean sprouts are thoroughly washed first and then soaked for ten hours in water (22°C). Then water drained off and beans placed in large tubs and turned on side at angle.

In winter beans are washed off and soaked in water for 30-40 min. In winter the sprouts are ready for market in seven days.

Sell 200-300 lbs. of sprouts per day at this time. March, April, May, and June are the best months for

selling the sprouts. In
these months 400-600 lbs
are sold per day.

The dealer here sells for 3-5
sen per lb.

The room is kept at 20°C
and is a small dark room.
The large tubs are covered
while on their sides with
several layers of burlap
sacks.

No attention is paid as to the
best variety for sprouting.

Before 1923 earthworms
and many sprouts were used
since that time, the use of
sprouts has gradually
increased and placed on
the markets.

The isprouts are used
in salads. Japanese

soak in hot water for
salads, for garnishing,
for clear soups, for cooking
with other vegetables and
meat, and for sukiyaki.

Soy bean curd - fresh 10

Soy bean fried curd 8 pieces 26

2nd Bean Sprout

3 shō beans in small
tub - are first thoroughly
washed and then soaked
5-6 hours. Then placed
in large tub. 2nd

placed in large tub
are soaked in water

three a day for 30 min.

For sprouts (mung) take

1 week for winter. In

summer 4-5 days

The soybean sprouts are treated
the same way for sprouting
only 1 shu of beans are
used. Room kept at 12°C .
Soybean sprouts are made
only on special orders.
Mixed yellow soybean
are used for sprouting
Soybeans grow to 4 in.
long and takes 10-14 days.
They are grown according
to desire of people but
generally are grown
4 in. long.

After sprouts are long enough
both wings & legs, wire
strainers, are used and
the hulls washed off.
Sells 6 tubs per day - 60
lbs. per tub

Bean sprouts for photographs	10
2 cans salted soy. & Perilla seed	70
1 roasted black soy bean curd	60
1 rice-soy bean cakes	50
1 ^{crushed} rice-sesame seed ^{not roasted} soy	50
1 Soy bean curd horn	1 50

After the visit to the bean sprout factory, we visited the confectionary stands in the vicinity of Asakusa Park. We found an abundance of candies and cakes in which soy beans and other beans are used.

Many candies and cakes were found in which the roasted soy bean was used similarly to peanuts in the U.S. in making various confections.

It began raining just
as we reached the Park.
Four products were
purchased.

In the evening, wrote
up notes and say from
products, and some
official notes and
correspondence.

Wednesday - Jan. 29, 1930.

Tokyo, Japan.

Cloudy and mild. In the morning wrote a letter to Dr. Burison regarding the purchase of mykran products by Mr. Kurihara. Went to the dentist, Dr. Hideyasui.

Went to the office and worked on mykran products all the afternoon. Finished up all products for packing except two.

Began raining in the evening. Wrote up motion picture reel #38 on strawberry culture in

the Shizuka district.
Wrote letter to Dr. Peters
regard exploration work
and also concerning
the Goycia fungus.

Thursday - Jan. 30, 1930.

Tokyo, Japan.

Mild and clear.

In the morning went out to the Shingyoku section to look up soy-bean products. As the confectionary stands many bean confections were found but there had been collected others days. In the department stores small glass jars and small wooden boxes of miso were found and purchased. Nearly all stands had two or three kinds of soy bean candy, rice cakes with roasted

soy bean sticks in them.
There were also jars of
roasted soy beans with and
without pieces of scallion
and sugared coated roasted
soy beans of different colors.

After visiting many
stores in this section, we
went to the Asakusa
section to look over the
various stands in the
parks. Every stand had
some soy bean products,
such as soy bean candies,
rice cakes with roasted
soy beans, rice cakes with
chopped up soy beans,
sugared ^{roasted} soy beans of
different colors, and
roasted soy beans.

A visit was made to
a store having nothing

but supplies for the
manufacture of tofu.
Everything was evidence
such as the tofu man's
home, bamboo basket
strainers, bamboo mats,
diggers, tofu men's boxes,
stone mills, etc. The
owner advised us that
he had sold 11 complete
tofu outfits in the
United States. He also
gave us the name of
some yuba factories in
Tokyo.

Had a splendid view of
snow covered Fuji from
the roof of one of the
department store buildings.

Day's purchases purchased.

2 boxes cocoa	✓	1	20
1 Green cake	✓		30
1 cake - me & sons			30
1 mixed little blood	✓		60
3 boxes miso	✓	1	50
2 gals miso etc Tekke	✓	1	60
1 pkg. cake	✓		35
1 box rice cake cookies	✓		15
2 bags rye flour	✓		86
2 packages Kuba miso	✓	1	20

Friday, Jan. 31, 1930.

Tokyo, Japan.

Clear and cool. In the morning went to the dentist, afterwards went to the office with products purchased yesterday. Mr. Sugitake had purchased

Three other products,
^(Kakimochi)
Rice slabs with soybeans, 16
Soybean straw, branches of 12
holly, and sardines on the
branches of soybeans.
Cooked soybeans with 25
pickled perilla seed.

The soybean straw plants,
branches of holly with dry
sardines attached to the
branches of the soy straw,
are used with roasted

saybunns on 1-20-3,
known as Mame-maki
(bean scattering) day
(Setsubun). With the bundles
of bean straw plants, holly
and fish, in one hand
roasted saybunns are
scattered about the rooms
of the dwelling to scare
out the devils and bring
good fortune in. After
the scattering of the beans
the bundle is placed over
either the back or front
door. It is said that
about one-half to 1 lb. of
roasted beans are used
in this bean scattering
ceremony at each dwelling.
Advertisements, rather
gayly colored, are in
strict care. Elevated

cars, and busses, announcing
the holding of "Setsubun-z"
a religious rite and the
bean scattering ceremony.
"Setsubun" or "Division of
Seasons" falls on Feb. 3 and
spring commences in the
lunar calendar. In the
evening, every house
practices a traditional and
peculiar ceremony called
"Mame-Maki" or "Bean
scattering. When people in
the house scatter parched
beans in and out of the
houses loudly shouting:
"Fortune in, Devils out,"
thus calling in the
year's fortune and

driving out any probable
misfortune from the
household. At every
Fudo temple, a religious
rite called "Setsubun-e"
is held. Fudo temples
at Narita, near Tokyo,
at Fushigawa, and at
Meguro, and ~~at~~ Daishi
Temple at Kawasaki are
noted for the occasion.

Most of the products
purchased yesterday were
packed up for shipment.

Six samples of ^{soybean} seed were
received from the Seed and
Nursery Farm near Keijo,
Chosun.

Official postage

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Saturday - Feb. 1, 1930.

Tokyo, Japan.

Letter from the Branch
Station of the Furukawa -
Ken Agr. Exp. Sta. Yubikhashi -
cho, Furukawa - ken.

Japan gives the following
information on soybeans.
This prefecture grows
about 3830 cho (9675 acres),
and produces about
142,575 bushels of soybeans.
The average yield ranges
from .7 to 1.2 kobo
per $\frac{1}{4}$ acre (14 to 24 bus.
per acre).

The beans are planted
about the middle of
June and harvested

about the middle of
October.

In this prefecture the
soy beans are used for
miso, bean curd, and
shōyū sauce.

In the morning went
out hunting soy bean
products in various sections.
Many stores handling
bean confusions were
visited but had no pro-
ducts which had not
already purchased. At one
market several tubs of
soy bean sprouts were found.
These sprouts - 4-5 inches
long are much larger
than the mung bean
sprouts. Not many soy-
bean sprouts have been
seen in the various

markets or vegetable stands.

In one section several
bean confection stores
and some bean products
were purchased.

Pkg. roasted soybean candy	✓	20
Pkg. roasting soybean ^{devil} candy ^{chicken}	-	13
2 pkgs. guba	,	50
4 pkgs. Kudzu starch	,	32
1 pkg. Coco sugar ^{roasted soybean} crates	-	25
1 jbs. mixed sugar crates	-	20
puffed rice & soybean		

In one section we
came to a bean roasting
place, where they were
very busily engaged in
roasting soybeans for
bean scattering day
Feb. 3. At vegetable

stores large bamboo
baskets of gupped roasted
soybeans were seen. These
are for bean scattering
day - Feb. 3.

At the bean roasting
place, we were advised
that the Sodefuri and
Tsurunoko varieties
(From Hokkaido) are con-
sidered the best for con-
fections and are used
altogether by this place.
In the winter the dry
beans are soaked for
twenty-four hours, then
placed in bamboo
baskets and allowed to
drain thoroughly. They
are then placed in
large roasters over a

hot charcoal fire. At
this place. four roasters
like wire pop-corn
poppers were in operation.
The roasters are driven
by pulley and worked
with up and down
motion while shaking.
The beans are roasted
until the cotyledons
are light brown.

Many other bean stores
were visited but no
raw products were found.

Towards evening it
began to snow and
about 9.30 was snowing
quite hard.

In the evening finished
expense account and

wrote up saybean pro-
ducts collected during
the day.

Sunday-Feb. 2. 1930.

Tokyo, Japan.

Cold, snowing and raining.
In the morning went to
the high school building
near the Imperial Palace.
to see the "Take off" art
works of the students in
their dormitories. Some
were very good. Mr. Miyatake
said that this is their
anniversary day and
the only day in the year
that ladies are allowed
to visit the schools after
the exhibition. The students
have a general rough-
house and break up
all their works of art
and have a large bon-

- fire. After viewing the exhibition, we witnessed a fencing bout between the red and white teams of the school. Each captain had a flag of his team's color attached to his back. A student blew ~~in~~ a large seashell and the fight began. The fencers rushing at each other and whacking right and left. The point was to break the piece of bamboo stem attached to the helmet of each fencer. When this was smashed, the fencer was dead and out of the game. The team having the most unsmashed

four pieces were the
best. Most of the fences
were straw bundles
and had bare legs but the
cold, slush and wind
did not seem to bother
them.

We then visited the
Imperial University
grounds which formerly
belonged to a rich lord.
Some very pretty gardens
are in the grounds. The
old buildings were about
completely destroyed by
the earthquake of 1923.

We were taken to the
home of Mr. Akagawa
where we were served
a lunch of mochi

(crust case) in which
was chopped up mugwort
(*Artemisia* sp.) and
wrapped in seaweed. This
small cakes were dipped
in soy sauce and sugar.

For supper we had
shikiyaki (beef), white
miso soup (with fish
sausage), pickled shoe-
string radish, pickled
cabbage, grated dry fish,
fried bean curd in
soy sauce.

In the evening worked
on notes, and expense
account.

Monday - Feb. 3, 1930.

Tokyo, Japan.

Cool and clear: quite windy.

In the morning worked on expense account and then went to the office with the soybean products collected Saturday.

Returned to room and worked on expense account and worked on expense account.

Left about 3.0 P.M. to see the Beetles off on the President Lincoln. Many Japanese friends were down to see them off.

On the way back through one of the streets we saw scattering soybeans in

one of the times.

To-day is "Mame"-maki"
or bean scattering day.
It is all the Japanese
change of seasons according
to the lunar calendar.

Spring begins tomorrow
and winter ends to-day

All the temples scatter
beans to drive out the
devils and bring in good
fortune. The large temple
at Shiba Park is said
to have used 25 bushels
of parched soy beans in
their bean scattering.

During the bean scattering
a bundle of soy bean
plants, holly branches
(Ilex), and some dried
fish/sardines about

6 inches long. These are attached within the holly branches. The bundle is held in one hand during the bean scattering and afterwards is placed over the door of the dwelling. This is done to keep the devils out after they are driven out of the house. The devils are said to be very fond of fish and when they are about to enter the dwelling they see the fish. While attempting to obtain the fish in the holly branches, the spines of the holly leaves stick in their eyes and blind the devils. They therefore

are unable to see Dantes
the duelling.

This is a very ancient
custom and not so
much practiced in the
more modern cities. It is
however, practiced very
extensively in the rural
districts and villages.

About 1 lb. of beans are
used for each duelling.
The beans are merely
pratched over the fire.

After our return from
Yokohama, we went to
the Fuji for supper. On
our return, while going
down one of the streets,
we were sprayed with
beans from a second
story of a duelling.

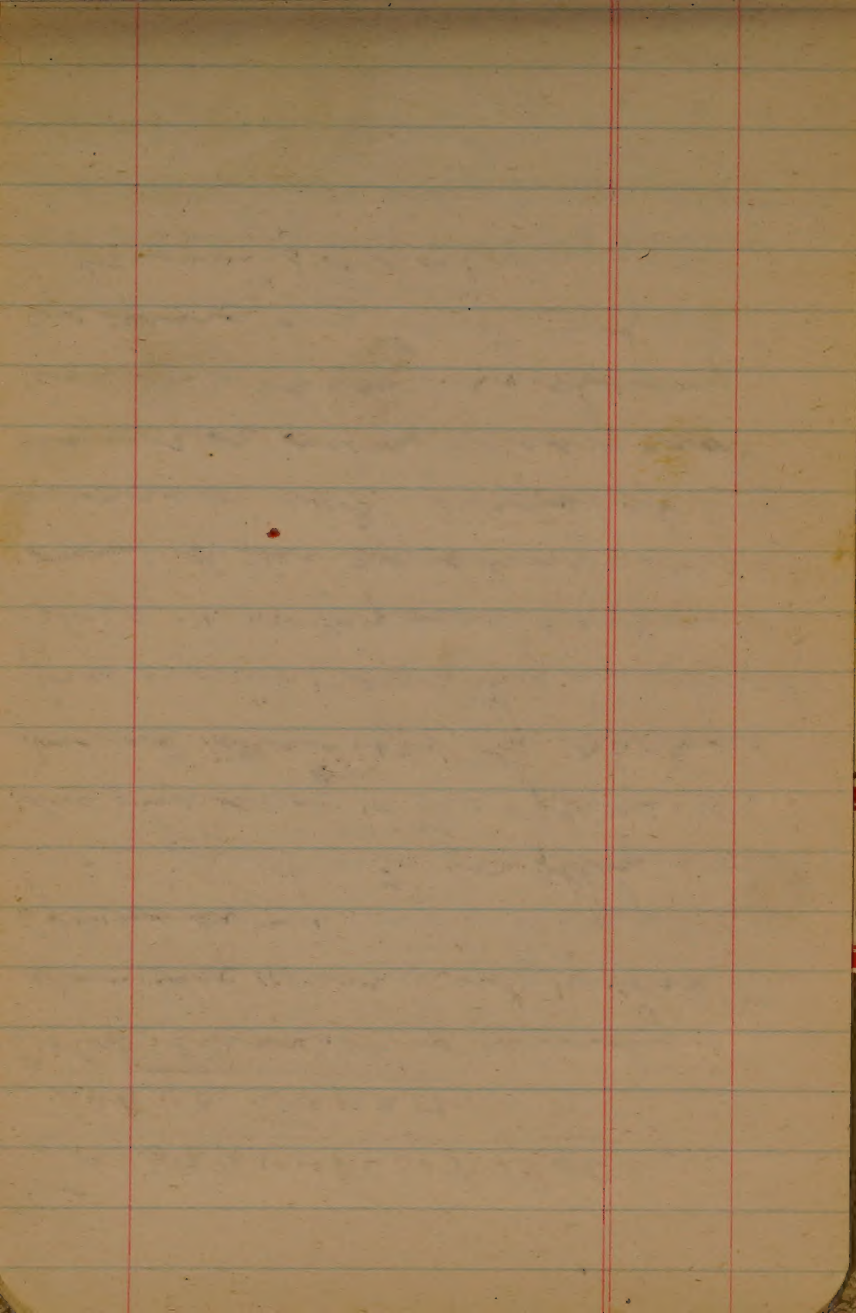
The windows were open
and beans were being
scattered about and
many flew out of the
window.

all of the temples and
shrines had special
bean scattering rites
in the evening.

after supper worked
on expense account
and wrote letter to
Carter about pay man
work for the coming
season.

Official postage

B2



Tuesday - Feb. 4. 1930.

Tokyo, Japan:

Cold, clear, very windy.

In the morning went to office and packed up soy bean products for shipment. On the way to the office we went through the shrine grounds near the Sankaido Bldg. The grounds about some of the buildings were covered with parched soy-beans which were used in the bean scattering ceremony last night.

During the morning packed up soybean products collected Saturday for shipment to U.S. I

In the afternoon went

back to hotel and worked
on expense account.
Finished typewriting
account at night before
went to bed.

Wednesday, Feb. 5, 1930.

Tokyo, Japan.

Cold and clear.

Soybean Sprout Factory,
Room Temp 20°C .
Sprouts make in tubs
and trays.

Soak the dry beans
according to the swelling
up of the beans. Beans
should swell up fully.
In winter 10-12 hours
In summer time 4-5
hours.

In soaking the water
should be $60-70^{\circ}\text{F}$,
After fully swelling up
water is drained off
and the beans placed
in trays. Then the

trays are covered with heavy burlap sacks.

The beans in the tray are watered 4-5 times per day if temperature is at above 70°F .

Beans are ready for market in 10-12 days. In this time the sprouts are 3-4 inches high.

Use the Hakute (Manchurian) but especially Hokkaido Tokachi variety.

The Akita 3rd grade variety has been tried but could not use.

Soybean sprouts sell (wholesale) 50 per for 10 lbs. Trays hold about 10 lbs. each.

$\frac{3}{4}$ of a bush of dry beans

Tachikawa
Nando

make a tray (10 lbs) of
bean sprouts.

$\frac{1}{10}$ to (1 shu) of dry
soybeans make 15 lbs.
of bean sprouts.

Trays (wood) are 15 in.
wide, 30 in. long and
4 in. deep.

Sells 50 lb. sprouts
to market daily.

Vegetable varieties of soy-
beans in Tokyo Prefecture:

- 1- Furoisode
- 2- Chamame
- 3- Sakigake
- 4- (Wase or Chuse Ozya
- 5- (Early or Middle Large Pod)
- 6- Higane

1926-242 cho.

Vegetable Soy

5261 Kan (10 lbs) " "

¥125.589

11

11

Mimamiasachi - Co.

¥43,638 (1926) vs

Mimamiatoshika Co

¥25,728 (1926)

Vegetable soybeans have
been used in Tokyo
Prefecture for 50 years.
People call vegetable soybeans
"Koyanume."

Left about 10 A.M. and
went out to Asakusa
Park. In the Temple ground
are many (about 8) old
Japanese women with
small stands on which
they have small tin
plates of soaked soybeans
(24 beans) which they sell
for 1 sen each. These are
sold for feeding pigeons.
Judging from the number

of men, women, and
children buying these beans
and feeding the pigeons
which are very numerous.
Many bushels of soy beans
are used in a year.

Still pictures and
motion pictures were taken
of the old women, and
also people feeding the
pigeons soy beans.

We then took the elevator
for Nairdo to look up
a factory where soy beans
were sprouted. We had
considerable difficulty in
locating the factory. But
finally succeeded. The
proprietor gave us much
information concerning

The sprouting of soybeans.
In addition to soybeans
mung beans were also
being sprouted. Bean
sprouts are but little
used by the Japanese.

Several trays of bean
sprouts were on shelves
but these were beyond the
proper stage as the sprouts
were about 8-10 inches
high. Good sprouts are
only 3-4 in. long.

Still and motion
pictures were taken of
a tray of bean (soy) that
had gone too far, a tray
of soaked beans for
sprouting, and 4 bunches
of soy bean sprouts as
they are prepared for

market.

After the visit to the
sawmill spent place we
took the elevated to Tachi-
kawa to visit the Tokyo
Prefecture Exper. Sta.
which is located about
2 miles outside of Tachi-
kawa. & which place it
was removed several years
ago from Nando.

This station has very
extensive grounds, and
is doing a large amount
of work of various kinds.

There is a large poultry
department, which
has modern equipment
in the way of cement
incubating houses, different

styles of horses, many varieties of turkeys, geese and chickens.

The station has a large dairy barn. Some very nice looking Holsteins were in the barn and some mighty fine looking bulls imported from the United States.

There was also a very large hog house in which were numerous breeds of fine looking hogs.

We were taken over the experimental plots and through the green-houses.

The experimental fields are entirely devoted to trucking and horticulture. In some hot beds

There were strawberries
with ripe fruit. Many
frames had lettuce,
young egg plants, and
other crops for early
transplanting.

In one of the frame houses
the director had an
ordinary wooden box in
which soybeans were
sprouting. This is said
to be the method used
in the farm house. The
beans first had been
soaked until they reached
full size (10-12 hours
in winter and 4-6 hours
in summer) and then
placed in the box. A
heavy stone sack was

placed over the box and
the beans sprinkled with
water 3 times a day. The
sprouts are allowed to
go to 3-4 inches high
which takes 10-12 days.

No soy bean work is
being carried on at this
station. In the Tokyo
prefecture, soy beans are
not little grown for seed.
They are very largely grown
as green vegetable beans.
The Tokyo section land
is too high priced and
therefore very intensive
truck farming is
practiced.

This station has pear,
fig, persimmon orchards
and vineyards. About
15 canisters of persimmons

are being grown. They
also have about 25
varieties of flowering cherries
and some flowering plums.
Seeds of all the persimmons
pear, and flowering
cherries were promised
us, as well as two of their
best strawberry-Fackuba-
originated by the head-
gardener of the Imperial
household. One of the
strains of this variety is
for hot beds forcing and
the other for outside
growing.

The director also promised
to obtain for us the early
varieties (80-85 days)
that are used for green

Vegetable beans in the
prefecture.

Thursday - Feb. 6, 1930.

Tokyo, Japan.

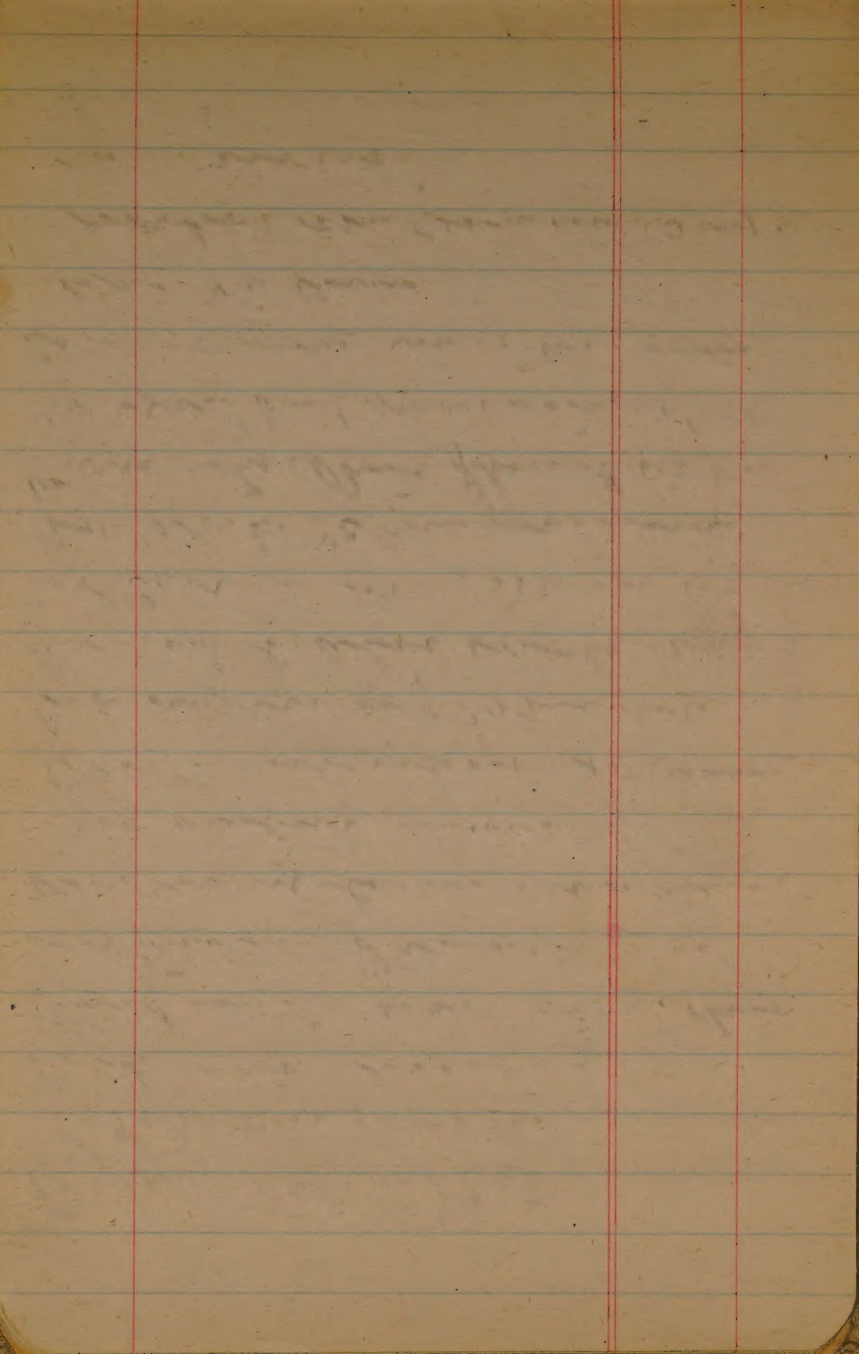
Cold and snowing very hard in the morning. This continued through the morning later changing into slight rain.

Wrote letters to Jor and Cox regarding expense account. Also wrote a letter regarding "Kine-kuzen" for Mrs. Schreyer, New York City. This plant is not kuzen but *Dumbaria villosa* commonly known as wild adzuki bean.

Worked on Japan soy-bean notes.

Official postage

46



Friday - Feb. 7, 1930.

Yokohama, Japan.

Cool and clear.

Left Shinjimbashi Sta., Tokyo
at 10.05 A.M. (3).

Ar. at Sakuragicho Sta.
Yokohama at 10.50 A.M.

Left Sakuragicho Sta. Yokohama
Sta. at 3.05 P.M.

Ar. at Kamato
at 3.25 P.M.

Car fare (3rd) Shinjimbashi Sta.

to Sakuragicho Sta., Yokohama —

Car fare (3rd) Sakuragicho Sta.
to Shinjimbashi Sta., Tokyo —

Left Kamato Sta. 5.00 P.M.

Arrived Shinjimbashi Sta. 5.25 P.M.

Left Kamato — 5 P.M.

Tonic Tea = Matsunobacha —

Pine needle Tea — 240 ^{Pine needles, very many}

Ukagaki Miso. ⁽¹⁵⁾ 30

Rice coffee (Unpolished rice)

30 Polished rice with black soybean

Soybean sprouts 10

Soybean flour 15

Miso wafers 15

Soybeans (green) 05

Soybeans (black)

Upon arriving at Yokohama, we went on the Benten-Dori street and then to stores on other streets near. At one of the department stores we found "Matsunohacha", green needle tea, which is said to be a tonic or medicinal tea, and is good for all sorts of ills such as colds, stomach trouble, heart trouble, lung trouble, and

many others. This is the first time that we have seen this product. It is composed of fine needles, black soybeans, and herbs of different kinds. At the same store another form of miso, called "Okazuki Miso" was found. This was done up in a bamboo sheath and very much resembled the "Hamaratto" manufactured in Kyoto. This form of miso is eaten like Hamaratto during the meals, in the same manner as cheese is eaten at meals in America.

Seed of a black variety

of soy bean was also found which in shape resembles the Flat King but the seed is smaller. This variety is used as a boiled bean in vegetable mixtures and as a bean boiled in syrup. At many of the stores, the Tsurumoto (Hokkaido) was found. In some stores, a medium large greenish yellow bean was found and is called "Ao mame". It has a black hilum and is used as a boiled bean with vegetables.

Many stores handling cakes and bean products of many kinds were found but for the most part we had secured these products

in Tokyo. Candy, like
peanut candy, with the
greenish yellow roasted beans
were found at all confection-
ary stores and stands.

A large number of places
were found which dealt
only in adzuki products.
Some very beautiful forms
and colors of adzuki
pastry were found. It
seems that the adzuki
really forms the candy
or sweetmeat of the
Japanese.

After visiting many stores
in Yokohama we went
to Kamato about half
way between Tokyo and
Yamanashi. This place is

said to be the Hollywood
of Japan. Several vegetable
markets were found in
this place and nearly all
had small bunches of
soy bean sprouts which
sold for 5 sen each. More
bean sprouts (say) were
found in this place
than we have found in
Tokyo. The sprouts of some
bunches were about 8
in. long while in other
cases they were about 6
in. long.

Kamato had many con-
fectionary store and also
adzuki bean places. No
new soy bean products were
noted. Some miso wafers
were purchased but there
were also found in

confectionary stores in
Tokyo. Most of the stores
seem to handle these wafers,
which are very crisp and
good, although not much
taste of miso can be noted.
The ordinary miso is
said to be mixed in the
dough and then the wafers
are baked.

Dried frozen tofu in
different forms of packages
were found in the various
stores. Not very much
yuba was found, and
this only in small packages
of sheets.

Soybean ^{instant} flour in small
paper sacks. adzuki bean
flour and kudzū flour

were found in the food
departments of all depart-
ment stores.

Saturday, Feb. 8, 1930.

Tokyo, Japan.

Postage

52

In the morning went to the consulate and had Jim. Rogers account shown to. This was mailed to Joe Mahoney on return to the hotel.

after breakfast went to office with my train products purchased yesterday in Yokohama and Kamata.

Photos were taken of these as well as rolls of stuffed train cake which Mr. Sugitake purchased on his way to the office.

The various products were numbered and written up. After photographing, the different products were packed up and arranged in Parcel Post package for shipment to the U.S.

Two varieties of soybeans large and small seed of the Adairgen were received from the Saitama Exp. Sta. Kawa Exp. Sta. These varieties, greenish-yellow are used entirely for green vegetable beans.

A sample of beans was also received from Mr. S. N. Lutz, Heijo, Korea. who purchased it on

the market at Soochun,
Korea. It was a very badly
mixed sample. Samples
of seed were written up
of those obtained in
Yokohama.

D.O.M. Nos. and the
photographic numbers
of all soybean products
were arranged. It was
found that we have
124 D.O.M. numbers
for soybean products.

Received a letter from
the Governor General's
Office, Keijo, Korea
advising that they
had heard from 6 of
the thirteen provinces
with regard to the seed

being collected for us.
The other provinces were
expected to be heard from
soon and the entire lot
of seed sent at once.

Kudzu articles.

Soybean Products & Data
desired in Japan.

Soybean oil

Nisshin Oil Mills

✓ 4/10/30

Soybean miso

Nishigahara Exp. Lab.

Soybean Sauce

Nishigahara Exp. Lab.

Soybean Crd.

Various factories

Soybean Yuba

4/4/30

1/17

✓

Soybean-Roasted Beans

✓

Soybean Sprouts.

Nakano

2/5/30

✓

Soybean Miso Factory

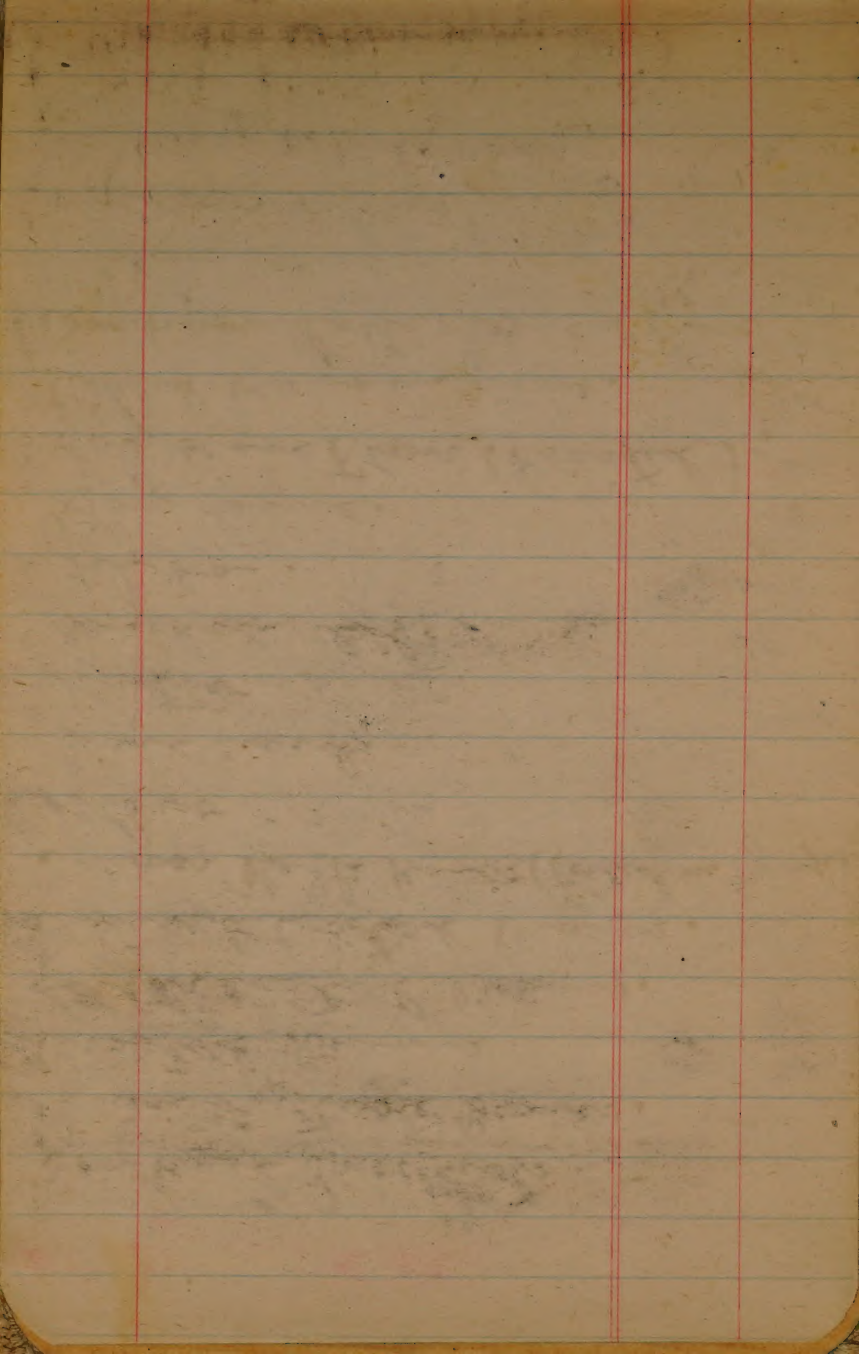
Chikuma Miso Factory

1/17/30

Mung Bean Sprouts.

✓

Places - where sprouted



Soybean Products -

- Green Vegetable Beans. ✓
- Roasted Beans ✓
- Sugar coated Beans. ✓
- Seasoned coated Beans. ✓
- Sugar Black Beans (boiled in syrup). ✓
- Miso - white & Brown
- Bean curd. ✓
- Natto. ✓
- Soybean oil. ✓
- Yuba. ✓
- Soy Sauce.
- Soybean Flour (Roasted). ✓
- Pickled beans in pods. ✓
- Soybean Paste - Roasted flour ✓
- Soybean candy. ✓
- Soybean cakes. ✓
- Soybean White Miso.

Soybean Products.

Kumagaya - Soy Products

Nakano - (Soybean sprouts) - ✓

Utsunomiya - Soy products.

Chiba - Soy Sauce - Soy Products

(Chiba prefecture is the biggest production of soy sauce)

Nishinagahara - (Soy Sauce & Natto)

Yokohama - Soy Products ✓

Choshi - another place in Chiba Prefecture where soy sauce is produced. Utsunomiya is the largest producing place while Choshi is second in production of Soy sauce.

Kanata - Soy Products ✓

Soybean Miso.

Imperial Bot. Garden.

Soybean Miso.

Variety of bean used

Length of soaking the beans.

Length of boiling the beans.

Bacteria added or not.

Amount of beans used

Amount of wheat used.

Kind of miso.

Length of time curing.

Price per unit.

Utilization:

